KZN PROVINCIAL GOVERNMENT

PROPOSED KZN REGIONAL AVIATION STRATEGY

ESTABLISMENT OF THE KZN AVIATION AGENCY

Report Presented to the KZN Provincial Government Economic Cluster

Prepared by the KZN Treasury Crack Team

September 2014

Executive Summary

(1) Since the establishment of ACSA, in1994, and the development of the ACSA airport network, regional, or secondary, airports have been neglected and declined in importance. This effect is reinforced because municipalities, that own the airports, are required by municipal legislation to give priority to basic, or essential, services thus starving regional airports of funds for new infrastructure or maintenance.

(2) A substantial amount or research has been completed on KZN Municipal Airports, for the DEDT, and is available in status quo and draft strategy reports, published in January 2012. This Strategy Report builds on previous work, in the light of recent airport developments and further research.

(3) The proposed KNZ Aviation Strategy involves nine secondary airports all owned by local municipalities. The airports differ widely in both their functions, operations and facilities. Pietermaritzburg and Richards Bay service scheduled air carriers to ORTIA, some airports have intensive general aviation activities, while others are little more than landing strips. The airport authorities act independently, without cooperation on development of infrastructure, route systems, or promotion of tourism and business opportunities.

(4) There are basically three municipal airport management systems- an internal department, an external service provider or a concession agreement. All are severely flawed in terms of providing efficient services, generating revenue and planning and providing for new infrastructure. The KZN Aviation Strategy proposes an airport management structure that offers long term strategic planning and four lines of functional airport management – operations, planning and development, business operations, finance and administration.

(5) A network of regional airports will provide a service for air route systems operated by private air carriers, offering scheduled, shuttle and charter air

services, and public organizations delivering emergency air medical, security and disaster management services. It is visualized that KSIA will be the hub of this network, a pivot around which all air network and feeder systems operate.

(6) Aviation economic considerations will play an important role in determining the success of a KZN Aviation Strategy. The demand for air travel depends not only on the relative price of an air ticket, personal income levels and preference for different modes of travel but also on the safety, security, reliability, connectivity and time saving associated with air travel. On the supply side financially sustainable operations on regional air routes require the flexibility of much smaller aircraft than conventional low cost carriers. These aircraft operate at higher per passenger cost and may not be able to offer ticket prices that meet the expectations of potential air travelers. The right balance must be found between demand and supply.

(7) The following vision is proposed for the KZN Aviation Strategy:
The creation of a network of KZN airports, with KSIA as the hub, that sustainably, efficiently and effectively, provides commercial, private and public service air routes, connecting economic and administrative regions to each other and to national and international air routes, thereby creating business opportunities and generating new jobs.

Five goals are set to fulfil the vision:

Goal 1: KZN Provincial Government Cabinet approves, and provides initial funding, for the establishment of a body to be known as the KZN Aviation Agency (KZNAA)

Goal 2: KZNAA acts as an umbrella body to negotiate shared service agreements, between local authorities, to guide and assist in the development of uniform and appropriate airport management models.

Goal 3: KZNAA negotiates with commercial air carriers, municipalities and government establishments to develop and coordinate a routing system, meeting the demand for regional air services and the needs of communities.

Goal 4: KZNAA facilitates the planning by municipalities of airport infrastructure and development projects that will promote business opportunities and create new jobs.

Goal 5: KNZAA organizes the provision of an integrated system of upgraded runways and airstrips, in rural KZN, to provide reliable facilities for emergency air services.

(8) There are a number of key issues that need to be addressed:
- Conformity with National and provincial government development plans.
- Achieving air linkages and connectivity within the regional airport network. Providing innovative incentives to induce private air carriers to participate in the plan.
- Obtaining "buy-in" from the local municipalities to the concept of the KZNAA and agreement on a legal framework and funding mechanisms.
- Integrating KSIA and DTP into the KZN Aviation Strategy to perform the key role of regional aviation hub. Incorporating the KZNAA into the "Aerotropolis" strategy currently being developed by the DEDT.
- Finding a role for "recreational" general aviation in the KZN Aviation Strategy, given that ACSA does not wish to be involved with this aspect of the strategy.
- Incorporating certain KZN airstrips, playing an important role in providing a facility for medical emergency services, into the KZN Aviation Strategy, and possibly widening this role to include other services.

(9) There is a wide range of diverse stakeholders in the government, public agency and private sector that need to be consulted and drawn into the planning and negotiation process.

(10) The KZN Aviation Agency will take the form of an umbrella body to assist with technical advice and coordination of high level planning, policy direction and establishment of uniform management practices. The Agency is visualized as a unit in one of the Provincial Government Departments, possible DEDT, but there may be certain advantages to location in the DOT or the Office of the Premier.

(11) A Provincial Government precedent exists for addressing the limited capacity, and constrained resources, of municipalities in development planning. Shared Service Agreements, which are voluntary agreements between the Province and Municipalities, pool resources and rationalize planning skills. A Shared Service Agreement between the Provincial Government and the nine Local Authorities will provide a suitable framework for the relationship between the KZNAA and Municipalities owning regional airports.

(12) Once the KZNAA is established a number of objectives need to be attained to fulfill the vision and goals:
- Establish a framework to coordinate management of municipal airports.
- Set up an air network and feeder route system.
- Assist and guide municipalities to formulate airport development plans.
- Integrate strategically located airstrips into an emergency response framework.

(13) There are certain risks, associated with implementing the project that can be mitigated by careful pre negotiation. A major risk is that ACSA and DTP may not support the concept of a regional air network with a central hub at KSIA. Secondly, there may be difficulties in acquiring "buy in" from all the municipalities, unless they are convinced that there are substantial net benefits.

(14) It is visualized that the KZNAA functions as a small tightly knit organization. The organization will fall under the HOD of the responsible Provincial Department, while the organizational structure will comprise the following officers:

Chief Executive			
Operations	Strategic Planning	Business Planning and Promotion	Financial and Administrative

This structure mirrors the proposed model for municipal airport management. Initially, before the work load builds up, one official could be responsible for two or more of the above functions.

(15) It is estimated the project will take four years to become fully operational.

- Year 1: Ground work, inception report, stakeholder meetings
- Year 2: Set up the organizational structure, appoint staff, acquire accommodation, negotiate shared service agreements.
- Year 3: Implement the objectives and work of the KZNAA. Assessment of airport infrastructure. Evaluate upgrading of emergency airstrips.
- Year 4: Long term planning for development of air routes and interconnected feeder routes. Access business opportunities and spatial planning for property developments.

(16) A four year budget, for the financial resources required to get the proposed KZNAA fully operational, shows a total expenditure of R26.3 million

Table of Contents

1.Background

The Airports Company Act of 1994 created a network of nine key ACSA owned and managed airports, providing access to high density international and domestic trunk routes, with international entry points at ORTIA, CTIA and KSIA. This inadvertently created a "disconnect" between the coordinated, and well resourced, ACSA airports and so called second tier airports, servicing "feeder routes", under the jurisdiction of local governments. These municipal airports became isolated and neglected, losing connection to national and international air routes.

KSIA and Dube TradePort (DTP) were established with the vision of creating another "aviation hub" in SA, including, as one of the supporting pillars of this vision, the development of a regional aviation network. The following proposals for a KZN Aviation Strategy seek to overcome existing legal and institutional constraints governing municipal airports, thereby creating enhanced, or new, air routes with connectivity to major economic and administrative towns and cities, with KSIA as the hub.

The issue was further complicated in the revised municipal legislation, introduced in the intervening period (the Municipal Systems Act of 2002 and Municipal Finance Management Act of 2003), since these acts required that municipalities give priority to the provision of "basic services" and airports were not defined as a basic service. The outcome is that municipal airports were excluded from IDP's and capital budgets, leaving them in limbo, without ACSA, Provincial Government or Local Government taking full responsibility for their management, annual maintenance or new infrastructure. The end result has been an alarming deterioration in the planning, management, maintenance and coordination for second-tier airports, at a time when ACSA has been aggressively developing trunk routes and international entry points.

There has been a concentration of air traffic around the three ACSA hubs (ORTIA, CTIA and KSIA) and six ACSA provincial airports, while at the same time secondary airports, not connected to the ACSA system, declined in socio-economic importance. The historically valuable contribution of regional airports to

business, and local economic development, in their catchment areas (generally all potential direct and indirect beneficiaries within a two hour driving radius) has been lost. Many of these municipal airports have become essentially defunct and degrading pieces of infrastructure. Previously 'accessible' outlying destinations have lost air connection to emergency services.

Rather than letting valuable assets waste away elected local government representatives, and senior municipal officials, should be planning to make use of regional airports as contributors to improved transport systems, the provision of strategic infrastructure and efficient emergency services, as well as income generation and job creation opportunities.

2. Literature Review

A substantial amount of research has been completed on KZN Municipal Airports and is available in the form of two reports:

(1)   KZN Municipal Airports Project, Draft Status Quo Report, Prepared by Glen Robbins, John Filitz and Keri Arokium, School of Development Studies, University of KwaZulu-Natal, for the KZN Department of Economic Development and Tourism, December 2011.

(2)   KZN Municipal Airports Project, Draft Strategy Report v2, Prepared by Glen Robbins, John Filitz and Keri Arokium, School of Development Studies, University of KwaZulu-Natal, for the KZN Department of Economic Development and Tourism,. January 2012

The Status Quo report deals with the legislative and strategic policy context, and provides a situational analysis. There is also a SWOT analysis and discussion on the economic impact of airports. The draft strategy report looks at key issues and proposes a vision statement and project goals.

The proposed KZN Aviation Strategy builds on the work already completed, in the light of new information, and developments around the KZN Municipal

Airports, since January 2012. A number of reports prepared for the KZN Provincial Government Treasury, listed in the bibliography, have been utilized.

3. The KZN Regional Airports

There are nine regional, or secondary, airports in KZN owned by municipalities and operated either as part of a municipal department, or by an appointed management company, or in one case by a concessionaire.

Airport	General Aviation Activity	Scheduled Service or Shuttle	Management
Pietermaritzburg	Moderate	SA Airlink Federal Air	Indiza
Richards Bay	Moderate	SA Express	Concession
Virginia	Extensive	Federal Air	Indiza
Margate	Moderate	No	Hibiscus Coast Municipality
Ulundi	Minor	Federal Air	Zululand District Municipality
Newcastle	Minor	No	Municipality
Vryheid	Minor	No	Municipality
Mkuze	Minor	No	Umhlosinga Dev. Agency
Dundee	Minor	No	Municipality

All airports provide a general aviation facility but utilization at each airport varies greatly. Richards Bay and Pietermaritzburg airports provide for a scheduled air service to ORTIA under a SACAA 'Part 121' or 'Part 135'Licence, while there is a 'Part 135' shuttle service between Pietermaritzburg, Virginia and Ulundi.

The airport authorities all act independently, without any cooperation on development of infrastructure, air routes, feeder routes, services or promotion and advertising. There is no common policy, or consensus, on how to promote tourism or associated commercial developments.

The establishment of route networks and feeder/shuttle services for air carriers requires that the airports, within the network, establish and meet certain common standards for facilities, aircraft and passenger safety, security and convenience. In addition, there is a need for tariff and pricing guidelines in terms of passenger service fees, landing fees, approach fees and other aeronautical charges.

Recently, municipalities have become aware that airports are potentially valuable tools for development, but have been unable to formulate development strategies or access funding, to take advantage of this resource. Management of the municipal airports has presented an on-going problem. This is a specialized function because of the need for a high level of safety and security for aircraft and passengers. Furthermore, the owners and operators of aviation infrastructure show a lack of understanding of the business constraints faced by aircraft operators. Financially viable operations require high level frequencies and load factors, with aircraft spending as much time as possible flying and not parked at an airport.

In addition, there are approximately 20 landing strips of strategic importance scattered around the Province. For example, airfields at Himeville, Kokstad, Manguzi and Hluhluwe all play a critical role in the delivery of emergency services, yet none of these receive regular maintenance or compliance reviews. Air Medical Services (contracted via Red Cross for the KZN Dept of Health) has recently made representations to Cabinet regarding the deteriorating condition of these facilities with the stipulation that service, to some of the more important of these airfields, will have to be terminated, unless they are upgraded to basic national and international standards.

4. KZN Municipal Airport Management Systems

Currently there are three basic management structures in operation at KZN municipal airports:

4.1 Internal Municipal Department

There is little understanding of the potential of airports to contribute to local economic development and, in some cases, a lack of personnel who understand planning and regulatory requirements, technical problems applicable to airports or the 'supply side' business constraints of aircraft operators. As shown in the table above, seven of the municipalities, all with under utilized airports, apply this model. Because airports receive a low priority in municipal budgets they are unable to obtain funds for capital projects, or even adequate funding for upkeep or maintenance. The airports do not generate sufficient revenue to cover expenditure, the deficit is subsidized and the airports are regarded as quasi public utilities.

4.2 External Service Provider

The municipality contracts an outside organization to manage the airport. Currently, Indiza Airport Management manages Pietermaritzburg and Virginia Airports in terms of such a contract. The model ensures that the technical aspects of airport management, concerned with compliance with CAA standards, passenger and aircraft safety are met. However, the promotion of commercial activity at airports (in terms of generating both aeronautical and non-aeronautical revenue) is neglected and management is encumbered by municipal rules and regulations. There is inadequate spending on maintenance of capital assets and acquisition of new infrastructure

4.3 A Concession Agreement

A concession is granted to an airport management company. This is the model used at Richards Bay. The concessionaire assumes full financial risk for the operation of the airport, including commercial activities, and is responsible for the maintenance and capital development of the airport. In return the municipality receives a percentage of gross turnovers and an annual lease rental. The weakness of this arrangement is that there is no incentive for the concessionaire to undertake new capital projects to upgrade

the airside of the airport. Nor has the concessionaire invested in non aeronautical business opportunities, such as retail and parking facilities, despite the fact that income from these activities accrue to the concessionaire.

5. A Model for an Airport Management Structure

There is no prescribed format for an airport management structure. The following model, a reduced form of that used by ACSA, shows a structure that would be suitable for a fairly large airport. Obviously small airports do not have the resources, or the need, for all aspects of the suggested structure but it can still provide the basic guidelines. The model is organized along functional lines and kept as simple as possible. The model works as follows:

5.1 Strategic Management

The Municipal Council creates a Municipal Entity (in accordance with the Municipal Systems Act) responsible for the management of the airport. A standardized format is needed to ensure that this entity has sufficient powers to act independently, without unnecessary delays and cumbersome bureaucracy.

The Board of the Entity formulates strategy and approves policy with regard to master plans, budgets, human resource issues and the mechanism by which the airport is managed. Guidance, planning and technical assistance will be available to these municipal entities, responsible for airports, through Shared Service Agreements with the proposed KZN Aviation Agency.

5.2 Functional Management

There are four line managers that report to the CEO of the Entity

5.2.1 Airport Operations.

This function is concerned with the day to day operation of the airport, compliance with SACAA regulations, air traffic control, safety and security of aircraft and passengers, emergency and fire services.

5.2.2 Airport Planning and Development.

There is a need for planning activity that stands back from the on going operations and takes a longer term view. This includes preparation and implementation of Master Plans, dealing with environmental issues, planning and delivering new infrastructure, research and forecasting, liaison with air carriers in planning new air networks and feeder routes.

5.2.3 Business Operations.

Airports create business opportunities that can be exploited to promote local economic development and generate non-aeronautical airport revenue. This includes retail space, parking, rental cars and advertising. Where land is available, property development of office, light industrial, commercial and residential space opens opportunity for private sector participation.

5.2.4 Finance and Administration.

All matters pertaining to budgets, income and expenditure, capital funds and other matters.

As stated above, small municipalities lack capacity and resources to perform all these functions effectively. In particular, airport planning and development, accessing capital funds for new infrastructure, and identifying and exploiting new business opportunities, may present problems. The purpose of this proposal is to present a framework to overcome these constraints in the form of a KZNAA.

The management model is shown schematically below.

Municipal Entity for Airport
Board of Dirctors and CEO

Strategy, Strategic Direction, Policy Decisions,
Legal Issues, Risk Management, Audit

Airport Operations

Safety and Security

SACAA

Fire and Emergency
Services

Environment Standards

Air Traffic Control

Airlines

Passengers

Baggage

Freight

Revenue Collection

Mainenance

General Aviation

Staff

**Airport Planning and
Development**

Master Plans

Delivering Infrastructure

Project Management

Research and forecasting

Compliance Regulations

Environnental Impact
Assessments

Service Standards

Socio-economic benefits

Job Creation

Runways, Hangers

Aprons, Terminal Building

Property Development

Roads and Parking

Navigational Equipment

Business Operations

Space Allocation

Retail

Advertising

Parking

Property Development

Office

Industrial

Logistics

Property Leases

Promotion Tourism

Finance

Budgets

Revenue and
Expenditure

Aeronautical and non
aeronautical

Capital Funding and
control

Procurement

6. A Regional Air Network and Feeder System

There is little point in having a network of regional airports unless they are interconnected and linked to a central hub. A regional air network and feeder system, operated by commercial air operators, will optimize the utility provided by well managed and planned municipal airports. The regional airports provide a service to airlines moving passengers and freight within KZN, and to major ACSA hubs such as KSIA and ORTIA..

Currently, there are scheduled services between Pietermaritzburg and ORTIA (SA Airlink and SA Express), Richards Bay and ORTIA (SA Express and SA Airlink) and Margate and ORTIA (CEMAir). There are scheduled shuttle services between Pietermaritzburg-Virginia-Ulundi and ORTIA-Ulundi (Federal Air). Plans are underway to introduce scheduled chartered services between ORITA-Ulundi-Mkuze and ORITA-Newcastle-Virginia.

Importantly, there are no feeder services between the KZN regional airports and KSIA. The proposed KZN Aviation Agency needs to engage with South African commercial air carriers to open up new networks, and feeder routes, to meet a latent demand shown by numerous studies related to municipal airports. Crucial to the sustainability of such an air network and feeder route system will be the type of aircraft the air carriers can successfully operate from small airports and a competitive ticket price. Instead of individual municipalities attempting to attract a scheduled airline a coordinated plan for the region should be developed, and put in place.

An air network and feeder route system requires a central pivot point, or hub, around which the network operates. Durban, South Africa's, third major metropolitan area, is the obvious location for a KZN airport hub. KSIA and DTP have extensive facilities to perform this role as the hub of a regional air network. It will be necessary to enter into discussions with ACSA and DTP, about their future visions for KSIA, in terms of their Joint Venture Agreement and the various land ownership structures around Dube Trade Port. This will allow a better understanding of the current ACSA thinking behind the development of major national and international air routes versus that of DTP and their 'aerotropolis' vision.

The diagram below illustrates a regional airport and airline network.
:
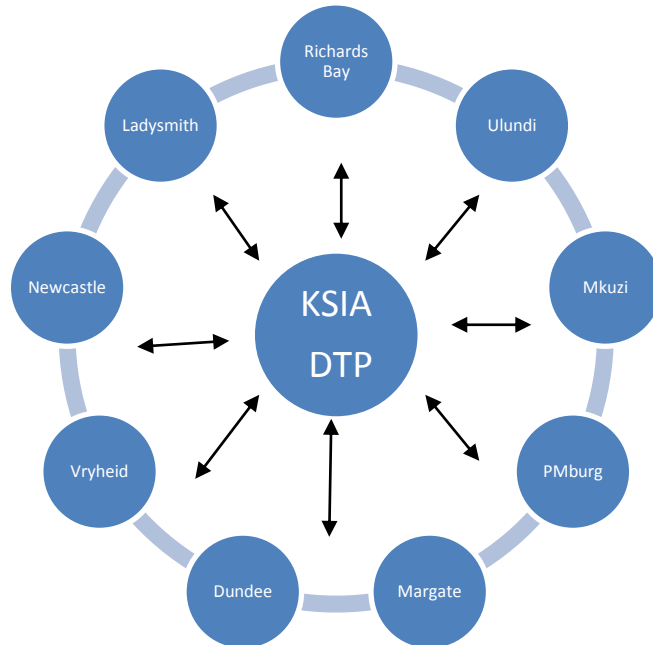
It is recognized that there may not be sufficient private, passenger or freight, demand for air services between all these airports to support a regular air service. However, in the public sector, the KZN Department of Health operates an Emergency Air Support and Doctor Outreach programme based on a set aircraft schedule. This could become a scheduled service foundation for a wider service within a framework of contracts with state enterprises such as Post Office, Telkom, Eskom, DWAF and KZN Tourism needing connectivity to regional centers. This would address some of the risk issues and make available subsidies through Framework Agreements coordinated by the KZNAA.

7. Demand and Supply Side Considerations

7.1 Demand-Side

An aviation strategy needs to consider the market, and potential demand, for air services. Providing high grade infrastructure does not guarantee that sufficient passengers will be forthcoming to make airports and airlines financially viable. Currently in KZN there are there are two regional scheduled air services – Johannesburg to Richards Bay operated by SA Express and Johannesburg to Pietermaritzburg operated by SA Airlink. In 2012 total passenger movements were 102000 and 81000 respectively. This is sufficient to support financially viable operations by the two airlines. A much smaller subsidized shuttle service is operated by Federal Air between Virginia-Pietermaritzburg-Ulundi. On the other hand, Newcastle and Margate have no regular service. Mkuze, Dundee and Vryheid airports have a limited amount of general aviation activity.

Msunduzi and uMhlathuze are the second and third largest regional economies in KZN, followed by Newcastle and Hibicus Coast. In terms of GDP per annum Newcastle is about half the size of Msunduzi, and Hibiscus Coast one third. This is an indicator of latent demand for air travel in Newcastle, Margate and Mkuze.

However, the size of the local economy is only an indicator and the key factors determining the demand for air travel from any airline are:

- Relative price of an air ticket compared to that of a similar competitor
- Relative cost of an air ticket compared to alternative modes of transport such as road, rail or ship.
- Income level of the potential passenger
- Individual preference for a particular mode of travel
- Safety, security, comfort and convenience of air travel compared to alternative modes of travel
- Time taken to reach a given destination
- Reliability of scheduled arrival and departure times
- Onward connectivity at destination

These factors will interact differently depending on the purpose of air travel which may be for:

- Business
- Tourism
- Holiday or leisure
- Visiting family or friends

The current demand is for point to point travel to ORTIA. It will take time to establish a network of regional feeder routes centred on KSIA. The choice of air travel, instead of other modes of transport, involves a number of factors, but the air carriers will only succeed in this market if they are able to sustainable offer suitable, comfortable and safe aircraft on the feeder routes. A key factor will be ticket price. If the airlines set the price too high air travel may be uncompetitive, compared to road transport using high speed national highways.

The various regional airports serve different markets, some are predominately business or agriculture, others tourism and leisure. This means airline operators must tailor there schedules and aircraft to meet the appropriate need. Fortunately, the basic infrastructure of runways and terminals is in place but it will take time for a regional market for air travel to establish itself. A start up period of 3-4 years would not be unrealistic.

7.2 Supply-Side

Operators have their own sets of challenges. In general the bigger the aircraft the cheaper it is to operate, but the block times and required total utilization go up. For example a 737-800, the aircraft of choice of Low Cost Carriers (LCC's), can carry up to 186 passengers. But such aircraft need to operate at an average load factor of about 70 % and still be in the air for 285 hours per month under current cost conditions. That's 53 000 pax hours per month.

Demand at small regional airports might only deliver a maximum of about 8 000 hours (about 1 cycle per day), which begs the question as to how these

larger aircraft make up the balance of their required hours. It becomes a 'network' issue for the operator and the high density; higher frequency routes will always dominate the decisions of operators in this field. And that is before consideration of crew rotation, fuel, maintenance and other operational issues facing operators.

Operators of air carriers on regional networks find that 'smaller is better' in terms of aircraft type, when matching demand to supply capacity. Smaller aircraft provide flexibility and help to mitigate both operating and infrastructure risk. These and other operator issues must be considered before regional services can are regarded as viable from a 'demand analysis' alone. KZNAA can facilitate this type of analysis and coordination.

8. Vision, Goals and Key Issues

8.1 Vision

In a memorandum to KZN Cabinet, regarding the KZN Airport Strategy, the HOD of the DEDT, in 2012, stated the main vision of the KZN Airport Strategy as follows:

KZN airports efficiently and effectively perform both wider aviation network and local business and community service roles, in a differentiated manner, across space in a way that supports job creation, transports integration and access to basic services.

Subsequent research has shown the need to include in the vision a system of interconnected air routes around a central hub. Air carriers must be included in the vision. A revised version of the vision is as follows:

Vision
The creation of a network of KZN airports, with KSIA as the hub, that sustainably, efficiently and effectively, provides commercial, private and public

service air routes, connecting economic and administrative regions to each other and to national and international air routes, thereby creating business opportunities and generating new jobs.

8.2 Goals

In the memorandum to Cabinet the key strategic goals of the KZN Airport strategy are listed as follows:

Goal 1: KZN airports contribute to effective functioning of an integrated, yet differentiated, airport network within a broader aviation system

Goal 2: KZN airports contribute both business and employment growth to the local and regional economy

Goal 3: KZN airports and the broader aviation infrastructure and services sector provide enhanced access to public services across the Province.

In the light of the revived vision statement the following goals are proposed:

Goal 1: KZN Provincial Government Cabinet approves, and provides initial funding, for the establishment of a body to be known as the KZN Aviation Agency (KZNAA)

Goal 2: KZNAA acts as an umbrella body to negotiate shared service agreements, between local authorities, to guide and assist in the development of uniform and appropriate airport management models.

Goal 3: KZNAA negotiates with commercial air carriers, municipalities and government establishments to develop and coordinate a routing system, meeting the demand for regional air services and the needs of communities.

Goal 4: KZNAA facilitates the planning by municipalities of airport infrastructure and development projects that will promote business opportunities and create new jobs.

Goal 5: KNZAA organizes the provision of an integrated system of upgraded runways and airstrips, in rural KZN, to provide reliable facilities for emergency air services.

8.4 Key Issues

8.4.1 National and Provincial Government Development plans

Does the proposal conform to published provincial and national development plans? For example, KZN as a gateway, building world class infrastructure, job creation, human and community development, spatial equity and so on. All of the above goals, of the KZN Aviation Strategy, are in line with higher level planning.

8.4.2 Air Linkages and Connectivity

How are air linkages and connectivity to be achieved? The network of municipal airports under the auspices of the KZNAA will provide a platform for safe and secure operations by regional air carriers, but what arrangements are needed to induce the airlines to participate in the scheme? Innovative incentives may be required at a number of levels (provincial, local and even private sector) to induce the airlines to fully participate in new planned regional air routes and feeder systems.

8.4.3 "Buy-in" by the Municipalities

How to get local municipalities to accept, or "buy-into", the concept of a KZNAA, and to agree on a legal framework for cooperation, adaptation and funding of a Provincial strategy? "Buy-in" is most likely to be obtained if the municipalities see a substantial net benefit to themselves. The concept, however, should not be sold as a free hand-out, but rather in terms of Shared Service Agreements, incorporating specific deliverables and funding mechanisms.

8.4.4 The Role of KSIA and DTP

How to integrate KSIA and DTP into the strategy, performing the key function of KZN regional aviation hub? Both these authorities are working within a paradigm that gives priority to national and international connections. However, the Aerotropolis concept and this proposal may cause them to rethink some of their values. KSIA, together with ATNS, serving as a hub for regional air operators, must

be able to accommodate air operators holding a Part 135 license issued by the SACAA, or holding an exemption from compliance with ATNS/ACSA regulatory issues. There is no obvious reason why regular or shuttle services, using such aircraft, cannot be accommodated at KSIA on "DTP land", although "slow" aircraft and types used for PPL training need to be filtered out. It is necessary to distinguish between commercial/corporate operations and "recreational' general aviation.

8.4.5 The Role of General Aviation

What role will GA play in the KZN Aviation Strategy and where will GA be located if Virginia Airport closes in the next five years? GA in KZN has been going backwards for 10 years, with declining aircraft movements and pilot training numbers. However, the ripples of a Virginia closure would cost the area a significant number of jobs and income. Could GA be relocated from Virginia Airport to KSIA, utilizing then DTP Trade Zone for general aviation activities? The issue is fairly complex – ACSA and DTP will support Part 135 services, shuttle, charter etc, but are not willing to accommodate 'private' (i.e. recreational) aviation or basic PPL training. Unless the ACSA mandate, to focus on key national and international airports, is reviewed GA in KZN will have to find an alternative home for private or recreational activities.

8.4.6   KZN Airstrips

To what extent should KZN airstrips to be included in the strategy? The airstrip side of the KZNAA will be a minor element, but needs to be included to provide safe facilities for emergency services, doctor outreach programmes and law enforcement agencies, and to assist rural municipalities in meeting their disaster mandates. Compliance, with even minimum safety standards, will require financial support from outside sources such as the Department of Health. However, the actual cost of getting the airstrips up to registration standard (R5 million), and maintaining that standard, is relatively minor when compared to the

goodwill, and political advantage, it will create among the benefiting communities.

9. Stakeholders

There is an extensive list of stakeholders that need to be consulted and drawn into the consultation and negotiation process.

Government	Public Agencies	Private Sector
Economic Sectors and Infrastructure Development Cluster (ESID)	ACSA	Airlink
	DTP	Federal Air
KZN Department of Economic Development and Tourism	CAA	Shelton Airways
	ATNS	Other Air Operators
KZN Department of Transport	SA Express	Aircraft Owners and Pilots Association
KZN Department Agriculture	South African Airways	
National Department of Transport	KZN Tourism	Airport Operators
KZN Premier's Office	Ezemvelo Wildlife	Chambers of Business/Commerce
eThekwini Metro	uMhlosinga Development Agency	Tourist Operators
Msunduzi Municipality	South Coast Development Agency	Hotel and Lodge Owners
Mnambithi-Newcastle Municipality		
UMkhanyakude District Municipality		
uMhlathuze Local Municipality		
Hibiscus Coast Municipality		
Zululand District Municipality		
Dundee Municipality		
Abaqulusi-Vryheid Municipality		

10. The Form of a KZN Aviation Agency

The South African Constitution (Part B of Schedule 4 read with section 156(1) (a)) designates secondary airports as an area of local government competence. Specifically these airports are meant to fall under the jurisdiction of District Municipalities, unless special circumstances prevail. The current proposal is not for the Provincial Government to become actively involved in either the ownership or operation of airports, but rather to provide an umbrella advisory body to assist and coordinate with high level planning, policy direction and establishment of uniform management practices. This will ensure a uniform and coordinated network, with efficient allocation of capital resources and assistance in accessing those resources through the Provincial Government and other fund providers.

Given the obvious need for such a body what practical form should it take? The question, or issue, of municipal airports and their integration into a regional network may not be a large enough issue to justify the creation of a separate Provincial Government entity. Alternatively, this matter could be handled internally by establishing a unit within an existing department and setting up Shared Service Agreements?

10.1 A Unit of the Department of Economic Development and Tourism (DEDT)

The DEDT commissioned a study of KZN municipal airports to establish the status quo and formulate a strategy for development of these airports. A draft strategy report was released in January 2012. This proposal is a follow up to that report and an attempt to finalize the strategy. The DEDT is currently involved in formulating a strategy for the creation of an Aerotropolis around KSIA and DTP. The concept of a regional airport network fits in well with the evolving Aerotropolis strategy of setting up a transportation complex to act as a catalyst for economic development, including trade, business promotion and property development, at or in proximity to the KSIA and DTP hub. The DEDT is probably the most

suitable department to promote the establishment of a KZN Aviation Agency. However, should the DEDT consider the proposed KZNAA beyond their mandate a home for the project might be found in the Department of Transport (DOT) or the Office of the Premier. This will be determined once the strategy is adopted, but the responsible Department, wherever the KZNAA is located, will oversee the management and work that is to be delivered by the agency.

10.2 A Shared Service Agreement

A Provincial Government precedent exists for addressing the limited capacity, and constrained resources, of municipalities in development planning. This takes the form of Shared Service Agreements that pool resources and rationalize planning skills. These are voluntary agreements that cover areas such as:

- Strategic planning
- Spatial planning
- Performance management
- Development management and information systems

A Shared Service Agreement (SSA), between the Provincial Government and nine Local Authorities, will provide a suitable framework for the management, organizational structure, human resource and financial requirements of the visualized KZNAA. In terms of the SSA the following functions related to aviation and airports should be regarded as the responsibility of the KZNAA.

- Strategic Direction and Risk Management, particularly with regard to the role of airports in local economic development
- Spatial planning for airport developments including commercial developments
- Preparation of coordinated Master Plans, and the planning and design of infrastructure projects.

- Research of the demand for air travel, accurate forecasting to anticipate changes in the demand and planning airline networks and feeder routes

- Compliance with South African and International aviation regulations.

- Guidance on airport management contracts

- Relations with ACSA, ATNS and DOT

- Training and appropriate equipment for fire and emergency services, safety and security.

- Assistance in preparing capital budgets and accessing capital funding.

- Identifying and promoting business opportunities to generate non aeronautical revenue from retail, advertising and parking operations and other commercial activities.

11. Objectives and Action Plans

Assuming that the KZN Provincial Government Cabinet approves the setting up of a KZN Aviation Agency, and provides initial funding, a number of objectives need to be set, and action plans formulated, to achieve the desired goals.

11.1 Establish a Framework to Coordinate Management of Municipal Airports

➢ Prepare an Inception Report that identifies stakeholder groups, willing to participate in a Steering Committee mandated to reach agreement on a Mission, Vision and Value Statement.

➢ Acquire the human and physical resources needed to set up, staff, accommodate and equip a central office that will form the core of the KZNAA.

➢ Negotiate a Shared Service Agreement that defines the respective roles and responsibilities of the participating Municipalities and the Agency, with regard to airport management functions.

> Set a legal framework (MOU and other documentation) for cooperation that will empower Municipalities to operate their airports effectively.

11.2 Set up a Regional Air Network and Feeder Route System

> Obtain agreement from ACSA, and DTP, that KSIA will serve as the hub for the regional air network and feeder system

> Conduct new, or pool, research into the pattern of demand for air travel on both national and trunk routes, accessing the effect on potential demand for feeder routes.

> Identify potentially viable regional routes and apprise the airline operators (scheduled, shuttle and chartered) of new business opportunities. Coordinate and encourage the opening of new routes, avoiding duplication.

> Do cost engineering studies using various routings and service times

11.3 Assist and Guide Municipalities to formulate Airport Development Plans

> Review all Municipal Airport business plans, master plans, infrastructure projects and budgets.

> Provide a shared planning service for the preparation of master plans and the planning and design of infrastructure projects. The agency will provide expertise on technical, environmental and other regulatory issues.

> Set and implement common planning standards in terms of uniform infrastructure requirements, safety compliance, navigational systems and traffic management policies.

> Provide advice and guidance on business planning and facilitation of non-aeronautical business activities (retail, advertising, parking, car hire) within airport precincts.

> Promote the planning and design of office, commercial, industrial and residential developments where surplus land, at or adjacent to an airport, is available for development.

11.4 Integrate Strategically Located Airstrips into an Emergency Response Framework

➢ Identify strategically important airstrips in KZN that could provide a facility for Aeromedical and Outreach Services as well as fire, disaster and law enforcement air services.

➢ Ensure that these Tier 3 airfields maintain minimum operational safety and security standards, are registered and inspected annually

➢ Develop a strategy for funding

(Note: This is in accordance with Cabinet Resolution, 12 June 2013: Item-Aeromedical and Outreach Services)

12. Project Risks and Mitigation Strategies

The large number of potential stakeholders in the KZNAA, all with different, diverse, and at times conflicting, interests and motivations presents some major risks to achieving consensus.

12.1 Lack of support from ACSA and DTP

ACSA will need to accept that there is a long term economic benefit in having feeder routes converge at KSIA hub, rather than perpetuating the status quo of consciously excluding general and 'private' aviation from their planning initiatives on the pretext that it is 'bad business' or low priority. There are challenges to be overcome in structuring and funding this integration at KSIA, which is vital to the proposed KZNAA model for a regional network.

The KZNAA initiative needs to be coordinated with the 'Aerotropolis' concept, initiated by the DEDT and DTP, to seek continued development of DTP as an 'Aerotropolis' along the lines of many international precedents. The KZNAA would provide important linkages between rural municipalities and the 'Aerotropolis'

12.2 Failure to Obtain Agreement from Municipalities

It is possible that some of the municipalities, owning and managing airports, may regard the KZNAA as intruding on their area of jurisdiction and responsibility, and object to making any financial contribution to the operational costs of a KZNAA. In obtaining "buy in" from the municipalities the overall net benefit must be emphasized and a wider vision of the role of airports imparted. This will require diplomacy and careful negotiation.

12.3 Creating Cross Cutting Institutional Structures.

There will be challenges in creating institutional structures that cut-across local jurisdictions in order to address aviation regulatory and infrastructure issues on a regional basis, but with active cooperation from ACSA, ATNS and the SACAA, as the overriding regulatory, these should be overcome.

13. Organizational Structure of the Unit

It is visualized that, initially, the KZN Aviation Agency functions as a small tightly knit organization focused on providing specialized services to a network of municipal airports. Municipalities are linked to KZNAA in terms of a Shared Service Agreement. The full time staff established will be supported, if needed, by Aviation Consultants in areas requiring specialized knowledge. The proposed organizational structure is shown below.

;

```
┌─────────────────────────────────────┐
│  HOD of Responsible Provincial      │
│           Department                 │
└─────────────────────────────────────┘

     ┌─────────────────────────────┐
     │   Chief Executive Officer    │
     └─────────────────────────────┘
```

Operations Officer	Stategic Planning Officer	Business Planning and Promotion Officer	Financial and Administrative Officer
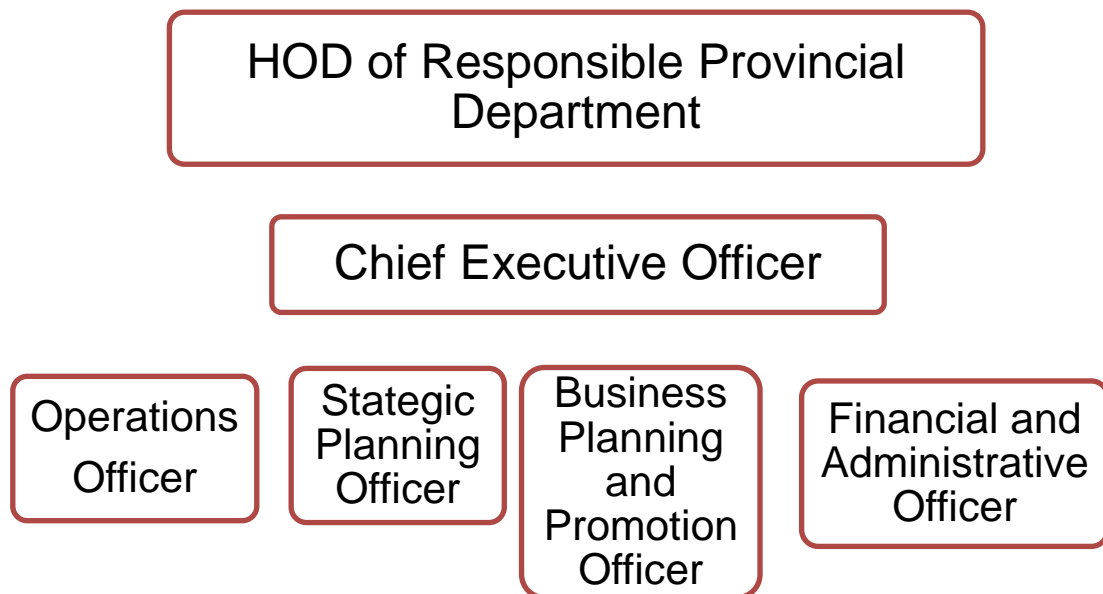
The CEO would be responsible for the overall strategic direction and management of the unit, compliance with all government regulations and financial oversight. This will require a person with extensive experience and understanding of both the operational and business sides of the aviation industry.

The Operations Officer will develop and implementing common standards and providing guidance and assistance with respect to:

➤ Airport management contracts, to ensure that the local municipalities cover all technical aspects and get "value for money"

➤ Air Traffic Control, whereby standard framework agreements with ATNS can be concluded at set contract conditions and tariffs.

➤ Airport Security, whereby best practices as required in terms of international conventions can be implemented and managed at common standards and costs.

➤ Medical, Fire and other Emergency services, by ensuring that a network of regional airports with the necessary infrastructure is available for essential medical, fire and law enforcement services.

- ➢ Training, by ensuring adherence to national standards and coordinating the specification of appropriate equipment for local fire and emergency services.
- ➢ Ensuring the compliance by all stakeholders with international standards regarding service levels to passengers, baggage and freight handling.

The Strategic Planning Officer would provide an umbrella service to oversee, coordinate and implement Shared Service Agreements, Business Plans and Airport Master Plans. This would include the design, planning and implementation of infrastructure projects. Cooperation with air carriers in planning new air routes and shuttle services is also visualized, as is research and forecasting future passenger demand for air services.

The Business Planning Officer would promote and generate commercial activity associated with municipal airports. This is a severely neglected area. Revenue from non-aeronautical sources could be increased to make a significant contribution to sustainable revenue. Retail space, parking space and advertising are important sources of income. Leases need to be standardized and brought to market related levels. Property development of land adjacent to the airport, but not required for airside facilities, is available for commercial industrial and residential development. These activities should be incorporated into integrated development plans and local authority capital budgets.

The Financial and Administrative Officer would be responsible for all legal, financial and administrative matters, including compliance with financial regulations and procurement procedures. In addition this officer would assist municipalities with capital budgeting, accessing capital funding and other financial matters pertaining to the operation of airports.

14. Key Project Milestones over the First Four Years.

It is estimated that the project will take four years to become fully operational. The milestones are set out below.

Year 1

Develop Inception Report, with agreed Project Plan and presentation for acceptance and approval. Draw all the stakeholders into a Steering Committee, agree upon its Terms of Reference and proceed to agree upon the Mission, Vision and Value Statements, and Goals for the KZNAA. Once the stakeholders have accepted the vision and goals proceed with negotiations for a Shared Service Agreement.

Year 2

Proceed with the setting up of the organizational structure that will be able to deliver on the objectives. Obtain agreement on the respective roles responsibilities and obligations of the players. Contracts and MOU's with participating partners, considering that there are at least (9) nine Municipalities and Provincial Government involved. Job descriptions for the staff visualized as making up the human resource base of the organization and appointment of such staff. Procure the physical resources in the form of accommodation, furniture and equipment, computers and other items.

Year 3

Implement the objectives and work of the Agency. Evaluate various business and financial models that will ensure long term viability and sustainability for the KZNAA. Preparation of long term airport master and precinct plans as well as a standard operational model. Instigate initial steps to access viability and prospects for airline routes and feeder routes, with interconnections. Evaluate the progress made in upgrading third tier airstrips that have strategic importance for emergency medical and other air services.

Year 4

Negotiate with airlines to implement new air routes and interconnected feeder routes. Evaluate general aviation and policies needed to revitalize pilot training, charter flights, recreational flying and business enterprises associated with general aviation. Access and plan for new business opportunities that become available at regional airports. Start long term spatial and infrastructure planning for property developments where land is available. Implement a system of registration and safety and security control for selected KZN airstrips.

15. Budget and Financial Resource Requirements

The following table sets out the financial resource requirements for the four years that it will take to get the proposed KZNAA fully operational. This includes staffing, office furniture, computers and communication equipment, and a provision for aviation specialist consultants. The total financial requirement over four years is R26.3 million.

KZN Aviation Agency: Project Start up and Operational Budget					
Expenditure Item	Year 1	Year 2	Year 3	Year 4	Total
Remuneration KZNAA Staff		R 3,500,000	R 6,300,000	R 6,300,000	R 16,100,000
Travel Expenses	R 135,000	R 135,000	R 180,000	R 250,000	R 700,000
Furniture and Equipment	R 26,000	R 230,000	R 36,000	R 36,000	R 328,000
Office Operational Costs	R 115,000	R 230,000	R 400,000	R 400,000	R 1,145,000
Communications	R 114,000	R 100,000	R 84,000	R 84,000	R 382,000
Specialist Consultants	R 2,700,000	R 2,700,000	R 1,800,000	R 500,000	R 7,700,000
Total	R 3,090,000	R 6,895,000	R 8,800,000	R 7,570,000	R 26,355,000

16. Conclusions and Recommendations

(1) The foregoing proposed Regional Aviation Strategy, incorporating the KZN Aviation Agency, must be presented to the Economic Cluster before it is tabled to Cabinet. (Res. No. 240 of 03 August 2011)

(2) If supported by the Economic Cluster, the Cabinet will be requested to support and endorse the establishment of the KZN Aviation Agency, as an official strategy for the province.

(3) The strategy will incorporate nine Municipal Airports and a number of selected airstrips.

(4) The strategy forms part of the Provincial investment outlook, providing connectivity, airline and feeder routes, between areas of regional economic activity and a central hub at KSIA and DTP.

(5) The expansion of aviation, and the coordination of Municipal Airports, will contribute to local economic development, and the creation of new business opportunities and sustainable jobs

(6) The main vision of the KZN Aviation strategy is as follows:

The Creation of a network of KZN airports, with KSIA as the hub, that efficiently and effectively, provides commercial, private and public service air routes connecting economic and administrative regions to each other and to national and international air routes, thereby creating business opportunities and generating new jobs.

(7) The key strategic goals of the KZN Airport strategy are set out below:

Goal 1: KZN Provincial Government Cabinet approves, and provides initial funding, for the establishment of a body to be known as the KZN Aviation Agency (KZNAA)

Goal 2: KZNAA acts as an umbrella body to negotiate shared service agreements, between local authorities, to guide and assist in the development of uniform and appropriate airport management models.

Goal 3: KZNAA negotiates with commercial air carriers, municipalities and government establishments to develop and coordinate a routing

system, meeting the demand for regional air services and the needs of communities.

Goal 4: KZNAA facilitates the planning by municipalities of airport infrastructure and development projects that will promote business opportunities and create new jobs.

Goal 5: KNZAA organizes the provision of an integrated system of upgraded runways and airstrips in rural KZN to provide reliable facilities for emergency air services.

(8) There are a number of organizational and personnel implications. The KZNAA will be a small unit consisting of a CEO and four other officers. Shared Service Agreements, Memorandums of Understanding and other legalities will need to be agreed between the KZNAA and the Municipalities.

(9) Financial Implications. It is recommended that R26 3000 000 be provided, over a period of four years, to set up the KZNAA and make it fully operational.

(10) Various methods of communication will be utilized to disseminate information to key stakeholders, interested and affected parties.

KZN Municipal Airports: Existing Infrastructure 2013									
Airport	**Runway**		**Rescue/Fire**	**Designated Security**	**Control Tower**	**Runway System**	**Lights**	**Approach Aids**	**Fuel**
	Length	**Width**	**Category**						
Pietermaritzburg	1787	30	4	Yes	Yes / ATNS	GNSS, DME, NDB/VOR	Yes	PAPI System	Jet A/ Avgas
Richards bay	1300	21	3C	Yes	Yes / Contracted	VOR / DME	Yes	PAPI System	Jet A Avgas
Virginia	925	22	2	Yes	Yes / ATNS	Durban / PMB NDB/VOR	Yes	PAPI System	Jet A Avgas
Margate	1338	30	2	Available	Magate Radio	No	Yes	PAPI System	Jet A Avgas
Ulundi	1700	23	2-4 (Upgrade in Sept 2013)	Available	Ulundi Radio / irregular	DME NDB	Yes	PAPI System	Jet A Avgas
Newcastle	1500	20	1	No	No	No	Yes	PAPI System	Avialable request
Vryheid	944	18	1	No	No	No	No	none	none
Mkhuze	1847	30	1	No	No	No	No	unknown	unknown
Dundee	640	20	1	No	No	No	No	none	none

Bibliography
General Strategy

Department of Transport; Green Paper on National Policy on Airports and Airspace Management (June 1997).

Department of Transport; Draft White Paper on National Civil Aviation Policy, (November 2008).

Glen Robbins, John Filitz and Keri Arokium; School of Development Studies, University of KwaZulu-Natal, *KZN Municipal Airports Project, Draft Status Quo Report*, prepared by for the KZN Department of Economic Development and Tourism (December 2011).

Glen Robbins, John Filitz and Keri Arokium; School of Development Studies, University of KwaZulu-Natal, *KZN Municipal Airports Project, Draft Strategy*

Report v2, prepared by for the KZN Department of Economic Development and Tourism(January 2012)

KZN Treasury, Application for Funding of the KZN Regional Airport Network, DBA Jobs Fund Application (JF2/1940), (May 2012).

C Coetzee and G Oldham; *KZN Municipal Airports Project*, report prepared for the KZN Treasury Department (August 2012)

KZN Treasury Crack Team; *Proposal for the Establishment of a KZN Regional Airport Initiative*, Presentation to the MEC for Finance (March 2013).

KZN Department of Economic Development and Tourism; *Proposed Kwazulu-Natal Integrated Aerotropolis Strategy* (May 2013).

KZN Treasury; Business Plan for the Establishment of the KwaZulu-Natal Aviation Agency, Application to National Treasury for GBGS Funding (June 2013)

KZN Provincial Rural Development Summit, *Report on Airports and Aviation Landing Facilities*, Categories of Infrastructure Impacting on Rural Development, Discussion Paper on Rural Infrastructure (July 2013).

Pietermaritzburg:
Coetzee C and Oldham G; *Economic Impact Study of the Pietermaritzburg Airport,* (October 2007)
Coetzee C and Oldham G; *Msunduzi Public Enterprise Feasibility and Economic Assessment Study: Pietermaritzburg Airport.* (June 2010).

The Airport Master Plan for Pietermaritzburg, prepared by Virtual Consulting Engineers (Final version, March 2012)

KZN Treasury Crack Team, Review of the Proposed Master Plan for Improvement of Municipal Service Delivery (September 2012)

KZN Treasury Crack Team; Review of the Pietermaritzburg Airport Master Plan Final Report, Revision1 (May 2013)

Ulundi
Ulundi Airport, Implementation Plan for Establishing a Gateway to Zululand (May 2006)

Revitalisation of Ulundi Airport (September 2008)

Newcastle:
Newcastle Airport Upgrade Viability Study, Final report prepared for KZN, Department of Economic Development by Kaiser Associates, (April 2005)

Feasibility Study and Business Plan for the Amajuba Agri-Technopark Project, prepared for the Amajuba District Municipality (April 2009)

Richards Bay
Richards Bay Airport: Update of Master Plan for Future Airport Expansion, prepared for uMhlathuze Municipality by nDawonye Consulting Engineers, (June 2010)

Margate
Hibiscus Coast Air Services Strategy, prepared by Virtual Buro Phases 1&2 Report, (October 2007), Phases 3&4 Report, (December 2007)

S Govender and G Oldham; Margate Airport Traffic Study: An Evaluation of the Potential Market for a Scheduled Air Service by SA Airlink between Margate and Johannesburg, report prepared by MIDI for KZN Treasury (November 2012)

Virginia
 Virginia Airport: The future of the airport and time horizons for new leases, Report prepared by the Economic Development Unit for Ethekwini Municipality, (August 2011)

 Mkuze

SSI Engineers and Environmental Consultants, *Summary Feasibility Report for Mkuze Regional Airport Project*, uMkhanyakude District, Northern KwaZulu-Natal, submitted by Umhlosinga Development Agency (September 2009)

Airstrips

KZN Airstrip Project, prepared by a project team for the Provincial Planning and Development Commission, (March 2004).

Request to KZN Cabinet for Approval for the Refurbishment of Airstrips, Aeromedical and Outreach Services, Department of Health and Cooperative Governance and Traditional Affairs (June 2013)