



INVESTORS FORUM FOR THE TANZANIA AIRPORTS AUTHORITY

Dar Es Salaam: 29 April 2003

GUARANTEEING AIRPORTS INVESTMENTS THROUGH TANZANIA'S SAFE AND SECURE SKIES

Presented by: Tanzania Civil Aviation Authority

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INTRODUCTION

1. The United Republic of Tanzania boasts of 945,090 sq km of land abounding with natural resources flanked by the Indian Ocean and the Great Lakes; and a population of 35 million generally friendly and peace loving people. The country abounds with generosity and natural resources. These attributes present tremendous potential for air transport growth, if it were not for the poor state of the economy - what seemed lacking and needed developing were the right commercial acumen, technology and funding base to deploy these resources fully.

2. Perfection of systems, facilities and services has been the cornerstone of Tanzania towards self-reliance and independence. And in the struggle to achieve this, the country has been going through various changes and processes. In the early years Government machinery engaged on provision of commercial goods and services by and on behalf of the citizens, to not only guarantee their supply, safety and security but also and more importantly equality, sharing and equal distribution among the citizenry. Within the limitation of public funds and processes; and the urge of human greed the country did make some progress; but it was not enough.

3. For some eighteen years now the country has engaged in transforming its economic base to a more market driven economy. The public sector is undergoing transformation; and there is more involvement of the private sector into economic activities in most sectors. Commercialisation, liberalisation, and privatisation/concessing of the industries serve to provide the right conditions and incentives to attract investors and to keep them.

4. The national resolve to let market forces and competition drive business applies to the air transport industry which has so far been one of the highly regulated industries the world over. In this particular case the industry en total is undergoing restructuring for better services, efficiency and sustainability; and changes are taking place in various scores – liberalisation of the industry for

market growth and improved services and sustainability, commercialisation of the enterprise for strength and efficiency, and empowering of the regulatory function with the necessary autonomy to perform its duties in a business like manner devoid of government bureaucracy.

5. Liberalization of domestic air service provision started in earnest in 1992 when the public owned Air Tanzania Corporation (ATC), which was also the sole provider of scheduled air services, was restructured and commercialised - it was allowed to set own tariffs and discontinue uneconomic routes. At the same time the domestic air transport industry was opened up to the private sector and new entrants allowed into the business. It was also decided to privatise ATC, and this privatisation started to take effect in December 2002 with the acquisition of 49% shares by South African Airways (SAA) while the government of Tanzania retained 51% of the shares. Some private air carriers have been licensed to operate in the domestic Tanzania market although those who actually do offer air transport services are only few.

6. In addition to liberal air transport approaches in the domestic sector, Tanzania has started to gradually liberalise her international air transport sector through review of its Bilateral Air Services Agreements (BASAs). It has already signed an “open skies” agreement with the USA and has adopted multiple designation and liberal frequencies in all its recently reviewed BASAs.

7. These processes require careful reengineering, enhancement and strengthening of the complete regulatory function to provide a satisfactory balance between a facilitative economic regulatory mechanism, and strict safety and security oversight. Therefore air transport infrastructure also has to be improved enable it play its role effectively. Tanzania has worked very hard to achieve this balance bearing in mind that whatever it does safety and security remain of paramount importance and cannot be compromised.

REBUILDING CIVIL AVIATION CAPACITY FROM SCRATCH

8. For many years Tanzania had entrusted the administration of her civil aviation industry to East African Community (EAC) of which she was a member; and the provision of air transport services to East African Airways Corporation (EAAC), which was one of the corporations under the EAC. When the EAC collapsed in 1977, the country was faced with the hard task of building her civil aviation industry almost from scratch. It had to establish its own fully-fledged Directorate of Civil Aviation and start its own airline ab ovo, without the necessary facilities. At the collapse of EAAC, the country managed to take possession of two F27-200 and one DC9 aircraft that were stranded in the country; it disposed of the DC9 immediately. The new airline, Air Tanzania Corporation (ATC) started operations with the two aircraft; but it had no hangar, workshop, documents or storage facilities to support the operation of these very

old aircraft. The country had minimal safety and security oversight capabilities – at one time there were only one, foreign airworthiness surveyor at the newly formed DCA.

9. By 1978 the airline had acquired three brand new F27-600, two B737-200QC and four DHC6-600 aircraft building up its fleet to total of 11 aircraft in one year – spectacular start off with a sizeable fleet that could not be operated efficiently, effectively and economically without maintenance facilities; the construction of KIMAFA¹ and the new terminal at DIA started; and the Tanzanian civil aviation industry had taken off again. There were procedures to be put in place, Acts to enact and everything civil aviation started almost from scratch. Safety and security oversight systems were nothing to write home about. They simply had to be built up afresh.

10. Initially, the newly established airline maintained its aircraft in Madagascar, Holland and Mozambique and several key engineering staff were seconded from KLM and India. As there were no workshops all rotables were maintained and repaired in Holland at KLM or Allen Airmotive or in Mozambique where most of the workshop technicians had been seconded. Four senior commercial pilots were also seconded to that country, and some others and all flight engineers had already left the country for challenging engagement of their profession outside the country.

11. While KIMAFA was under construction, a smaller hangar was built at Dar Es Salaam International Airport (DIA) to cater for medium term requirements. Later on this turned out to be the ATC hangar since KIMAFA, which was completed in 1982, has never been put into its intended use.

12. The other task was to address the totality of capacity building for the airline and the country as a whole, by training new technicians and pilots in many parts of the world: in Holland, Finland, India, UK, Pakistan etc.

13. It is not our intention to give a full account of the extent of capacity building that had to be done to civil aviation during that time of destitution. The purpose is merely to highlight the efforts that had been made to re-build this industry from almost nothing. But the given examples are not exhaustive - there was more that was done that is not mentioned here.

SAFETY AND SECURITY ENDEAVOUR AND ACHIEVEMENTS

14. When you talk of guaranteeing airports investments through Tanzania's safe and secure skies you straight away prod the part played by three major

¹ Kilimanjaro Aircraft Maintenance Facilities, a US\$24 million widebody hangar complete with workshops and equipment at Kilimanjaro International Airport

components of aviation infrastructure are (Navigation Services, airports and aircraft operations) and into the responsibilities and role of the regulatory authority in upholding safety and security. The Tanzania Civil Aviation Authority (TCAA²), the agency that regulates the Civil Aviation Industry in Tanzania and provides Civil Aviation Services on behalf of the Government of the United Republic of Tanzania, has taken up that role very seriously as clearly captured in its vision – “To be the leading civil aviation authority in Eastern and Southern Africa Region, providing and facilitating safe, secure, efficient and sustainable civil aviation services responsive to customers and employees.” It is through the activities of this agency that we can perceive the developments that have taken place in areas related to this task in the recent past.

15. Tanzania Civil Aviation Authority (TCAA) was established on 26th March 1999 as a Government Executive Agency of the Ministry of Communications and Transport. Some of the functions of the defunct Directorate of Civil Aviation along with the majority of the staff were transferred to TCAA, so there was no much change in that. The main reasons for changing from the DCA to TCAA were to create an environment conducive to efficient and effective management and improve the quality of services hitherto provided by the department concerned. These services are essentially Air Navigation Services and Flight Safety and Economic Regulation.

16. Now let us look at how the country has been addressing the aviation safety and security specific issues. The focus as far as safety is concerned is in developing, promoting and ensuring compliance with safety standards and requirements in flight operations, airworthiness operations, aerodromes and aviation personnel licensing. This is done in tandem with the enforcement of national air transport policy in order to promote an orderly and efficient air transport system. In this regard there are institutional measures and processes for licensing and facilitating air services, and enforcement of regulations governing the operations of these air services. So if you think of investing in air transport operations, you will surely be facilitated to do so so long as you can prove that you are financially and technically able to do so. And this is done very transparently – there is an Air Service Licensing Committee whose membership includes various stakeholders and experts to consider your case. We try to make sure that you are not a safety and security hazard to yourself and other operators.

17. When it comes to the safety issue per se, the aim is crystal clear and unmistakable - to have an aviation industry which at least complies with ICAO Standards and Recommended Practices in all civil aviation aspects, including aircraft maintenance and operations, aerodromes and aviation personnel.

² established under the Executive Agencies Order, 1999 Prior to that it was a Government department known as The Directorate of Civil Aviation, which was established in 1977 after the collapse of the East African Community.

Aviation Security is another crucial regulatory responsibility for the country as a whole – all the stakeholders form the system that controls aviation security in accordance with national laws, regulations and international standards and in close collaboration with the primary controller, the TCAA. The TCAA also takes a leading role in ensuring that the national policy, regulations, circulars and orders relating to aviation security matters are updated in line with current standards and requirements. It is singly responsible for ensuring that the industry implements all security requirements to meet international standards through regular checks. As an investor at our airports you will have a critical role in all this.

18. Air Navigation Services (ANS) maintains flight safety by efficient management of the flow of traffic using internationally agreed standards. This task³ requires the effort of many people and many facilities and it also involves other countries since the Area Control Centre (ACC)⁴ situated at Dar es Salaam International Airport is responsible for managing flights passing through Tanzanian Airspace as well as the upper airspace over the territories of Burundi, Rwanda and up to longitude 44°E in the Indian Ocean. ANS ensures the flow of information for the safety, regularity and efficiency of air navigation and comprises of facilities and equipment employed to collate, edit, publish and distribute aeronautical information⁵. The other ANS facilities that contribute directly to safety and security are the Telecommunications services.

19. Any country is expected to offer the above-mentioned facilities and services to her civil aviation community. In our efforts to uphold safety and security we had to show seriousness in doing that and we strive to do more whenever possible.

20. We did mention at the beginning of this presentation that of late the country has reverted into opening up the management of commercial services and business to the private enterprise while the government concentrates on the business that it performs best – governing; and that this process is accompanied by parallel efforts to restructure the public sector and service, to improve performance and accountability. We also mentioned that the Tanzania Civil Aviation Authority, the institution that the government has entrusted with overseeing safety and security was established in 1999 to make improvements in providing this oversight. Since then its mandate has been asserted and as recent as this month, a focused bill, the TCAA Act of 2003 has been passed to give the authority more autonomy to carry out this work more efficiently and more effectively. With that autonomy the TCAA now concentrates all its energy and

³ This task of managing flight operations within the Dar es Salaam Flight Information Region.

⁴ In addition to the ACC in Dar es Salaam there are 14 aerodrome control towers at Arusha, Dar es Salaam, Dodoma, Iringa, Kigoma, Kilimanjaro, Mbeya, Mwanza, Mtwara, Pemba, Songea, Tabora, Tanga, and Zanzibar.

⁵ Included are the preparation and dissemination of Aeronautical Information Publications (AIP), Notices to Air Men (NOTAM), Aeronautical Information Circulars (AIC) and the provision of plain language pre-flight information bulletins to flight crews.

resources towards fulfilling that role. So what we should visualise for the future should be nothing else but safer and more secure civil aviation industry.

21. Let us substantiate this with ongoing activities and concrete plans. In 1996, ICAO audited the safety oversight capability of the country and identified some deficiencies. This was done on voluntary basis. In April 2000, under the mandatory USOAP, ICAO carried out another audit and found out that we still needed to improve on documentation. We have done so, spending the last three years in putting our house in order, so to speak – we have reviewed our regulation, drawn up working procedures and prepared the missing manuals. We believe that we are now fully compliant and have invited ICAO to audit us in December 2003 in order to prove it. We are also confident that of satisfying FAA category one requirements this year to enable direct air transport services between the United States of America and the United Republic of Tanzania.

22. As far as infrastructure development is concerned, we have undertaken some projects aiming specifically at safety and security enhancement. Around 1996 we joined the Dutch AVIASSIST cooperation programme with the TANZAVIA project whose objective was to eliminate safety oversight deficiencies through rehabilitation of essential facilities and improvement on services. It particularly aimed at i) rehabilitation of power supply at DIA and KIA; fire fighting; and navigation/communication; and ii) co-operation between CATC and a Dutch aviation training institute. This project accomplished a lot within the limitation of its budget and financial resources⁶. It improved aviation safety through equipment supply, technical support and transfer of technology. Many issues were addressed and adequate support given, all of which helped to pull Tanzania out of what might have turned out to be a precarious situation as far as the aviation safety situation at DIA and KIA were concerned. The result was not only an improved safety situation but also a tranquil, breathing space for rational planning and modernization of ATS⁷ infrastructure with modern, automated equipment that has tremendously increased the air navigation capability of the country to cope with increasing traffic and consequently enhance safety. The equipment has high reliability and should guarantee continuity of service for many years to come.

⁶ It trained 24 fire service men; it provided ARFF equipment and its technical support; it provided a VDF and spare parts for ILS equipment; it carried out WGS-84 surveys; it designed GNSS approach for DIA and KIA; and it provided a DME for DIA. The rehabilitation of power supply at DIA started in February 2003 and will be completed in September 2004.

⁷ A Euro4.75 million, EIB financed, Air Traffic Services (ATS) modernisation project followed and was completed in February 2003. It included installation of i) navigation aids comprising DVOR, DME, and ILS; and ii) communication systems comprising ground to ground and ground to air voice communication systems, aeronautical data communication systems which include computer based Aeronautical Fixed Telecommunication Network AFTN; and iii) automation of AIS. Although terrestrial in nature these pieces of equipment are also a requirement for the satellite-based systems.

Another modernisation project, the Radar system was commissioned in December 2002. It has enhanced aviation security by detecting all aircraft movements in the Dar Es Salaam airspace.

23. As a member of EAC and SADC, Tanzania participates the sub-regional CNS/ATM systems implementation endeavours and safety and security related activities and projects. SADC's endeavour since 1994 entailed not only identification and classification of underlying activities for regional/national implementation but also physical implementation of such activities at both levels. Consequently, SADC established a VSAT network which connects the Dar Es Salaam FIR to those of other SADC member States. This network has brought tremendous benefits to participating countries: It has improved communication between the FIRs; it has enhanced service reliability in this regard; and it is relatively cheaper to run than the lease lines. Tanzania wishes to explore further the deployment of the VSAT technology to optimally connect as many of its airports as possible.

24. Tanzania has also started implementing some other aspects of the satellite-based systems (otherwise called CNS/ATM systems). Authorisation of the Global Positioning System for enroute and GNSS non-precision approach procedures will be published in the near future now that the necessary WGS84 surveys at both Dar Es Salaam and Kilimanjaro international airports and the design of GNSS procedures for these airports have been accomplished. As necessary studies are being finalised it is not long from now that a great part of the CNS/ATM systems will be implemented through our co-operation with the rest of SADC and EAC in the establishment of Upper Airspace Control Centre projects. We are about to start a USTDA funded GNSS project under the auspices of EAC to design procedures for ten more EAC airports beside the six⁸ for which such designs have already been done.

25. All these air navigation facilities are maintained at optimum serviceability level with clearly defined maintenance practices, procedures and schedules. The monitoring of their serviceability is also documented for technical analysis and development of the maintenance schedule.

26. The US initiated Safe Skies for Africa assistance programme that has been going on over a three-year period has also helped us in achieving sustainable improvement by meeting ICAO safety standards and improved airport security. The programme has provided us with adequate and proficient staff while more are being recruited and trained; it has also enabled us to install appropriate communications, navigation and surveillance facilities which are operating at optimum level. We have developed of aviation security regulations and we have reviewed air navigation regulations, procedures and requirements in conformity to ICAO SARPs. We are now able to carry out effective monitoring,

⁸ Dar Es salaam, Kilimanjaro, Jomo Kenyatta, Moi, Wilson and Entebbe International Airports

enforce procedures and systems and to carry out regular staff performance assessment.

27. These and the other projects mentioned earlier on have enabled the country to achieve improvements in all safety and security related areas. As a result, the following documentation⁹ is now in current: navigation inspections and procedures; Flight inspection and operating procedures; certification of equipment and personnel manuals/handbooks; The Aviation Security Regulations and the Aviation Security Standing Operating Procedures (SOPs); The Quality Control Programme and National Civil Aviation Security Programme; airport emergency plans and airport security programmes¹⁰; Airworthiness procedures and guidance material¹¹;

28. Furthermore, The Civil Aviation, Act 1977 and Air Navigation Aviation Regulations have been reviewed to properly reflect the establishment of the Tanzanian Civil Aviation Authority, its functions and responsibilities as an Executive Agency and change of powers from the Civil Aviation Board to the Director General of TCAA to enable TCAA properly perform the safety regulatory functions and duties; procedures have been established within TCAA involving the Ministry of Communication and Transport for the introduction of amendments into its regulations to reflect ICAO annex amendments.

29. As the urgency to address safety and security issues increased since the horrific events of September 11, 2001 in the United States, we have devoted more efforts on improving safety, security and regulatory systems especially at international airports. We have developed aviation safety and security plans and programmes. Particular security preventive measures like the identification programmes and passenger screening programmes at DIA, ZIA and KIA are being implemented, security screening equipment have been mounted, the fencing of DIA perimeter is complete; a standby generators has been purchased

⁹ TANRs have been amended; Inspection have been issued with appropriate credentials; information on examination and tests Standards for licences are issued in two documents - The Private Pilots' licence and associated Ratings and Professional Pilots' Licence. A guide to Licensing and Rating requirements; a system has been established for the supervision of flight tests; the criteria for the designation of examiners are established and included in the Civil Aviation Publication on Flight and Ground Examiners' Manual; all licenses are printed to reflect changes in the organisation and comply with ICAO Standards; A PEL Procedures Handbook has been published; A formal certification system has been developed and published; The Flight Operations Inspectors handbook has been reviewed and published.

The following guidance documents have been prepared:

- i) Document TCAA (33) 101 – Manual of procedures for flight operations inspection, certification and continued surveillance;
- ii) Document TCAA (33) 102 – Manual of guidance for the preparation of an operations manual;
- iii) Document TCAA (33) 103 – Manual of guidance for the preparation of a training manual;
- iv) Document TCAA (33) 104 – Aircraft cabin safety manual;
- v) Document TCAA (33) 105 – Manual of guidance in the appointment of instructors and examiners (including operators' proficiency test pilots).
- vi) Guidance for PPL, Professional pilot and RT licence

¹⁰ for 22 airports (namely DIA, Mwanza, Mtwara, Arusha, Dodoma, Tabora, Musoma, Iringa, Bukoba, Moshi, Shinyanga, Tanga, Mafia, Ngara, Nachingwea, Sumbawanga, Lake Manyara, Kigoma, Kilwa Masoko, Lindi, Songea and Mbeya).

¹¹ i) A Manual of Airworthiness Requirements
ii) Our Airworthiness notices
iii) An Airworthiness Surveyor's handbook.

for DIA; there is scheduled calibration of air navigation aids; and training is continuously being provided.

30. Furthermore the flight inspection function at TCAA has been enhanced with recruitment of an experienced pilot and designation of a cabin safety Inspector. All three operations inspector have undergone a formal training of Government Operations Inspector; Licensing officers have undertaken two-week attachment in a busy overseas licensing office; one licensing officer has undergone a flight operations course while the other has undergone through a safety oversight seminar; Pilot Flight operations Inspector undergo a simulator proficiency training annually; recurrent training programmes put in place and effected for a period of three years minimum; designated medical examiners are provided with a chance to familiarize with Cockpit environment; PEL and FOPS are provided with computers; Flight Operations surveillance in terms of proficiency observation, apron inspection, en-route inspections, etc. have been strengthened.

31. Both the TAA and the TCAA are taking training very seriously to equip the experts with the necessary knowledge to carry out safety and security operations and oversight effectively and efficiently. The TCAA allocates 10% of its budget to cater for its training needs. It also sets aside funds for training prospective AMEs and pilots for the industry. The TAA trained 520 personnel from its workforce in the last 3 years.

Future Programmes

32. Despite the level of safety and security already achieved, the country wants to do even more. The TAA requires US\$9 million for improvement of security facilities at airports and it has already committed US\$3.5 million for that in construction of fences, procurement of 7 X-rays machines, 18 walk-through metal detectors, 40 Walkie Talkie radios, One mobile bomb detector explosive vapour/particulate detector (one), signage, lapel badges, construction of periphery road, grading and levelling and access control gates. It will also spend USD 10 million financed by EU for over lay of Mwanza runway and US\$3 million as upkeep costs of safety related facilities for various airports.

33. Apart from developing the CATC into an autonomous company, future training will focus on Training of Trainers; Training of ATCOs; OJT for Instructor; Training of Pilots and AMEs; CNS/ATM Training; Training in GNSS Procedures; and Training on usage of TCAS and attending seminars and workshops for technical and management sharing of knowledge.

34. Other priority areas include preparing Aerodrome Charts, revision of airspace structure and automation of AIS, DIA apron and taxiway extension and

apron resurfacing, acquisition of fire trucks for Mwanza, Arusha and Zanzibar; runway and apron lighting for Arusha.

35. To cope up with implications of liberalisation TCAA therefore intends to put up a project to properly equip the TCAA to enable it carry out its regulatory functions effectively under the prevailing and unveiling regulatory and operational environment. This project will review the existing legislation and revise it to match with present and future regulatory and operational requirements; it will provide technical assistance in regulating the civil aviation industry including establishment of research and development unit and enhancement of baseline data on air transport services to enable assessment of the industry; and will build up TCAA capacity in regulating the civil aviation service providers; including training of key and newly recruited personnel in the Safety & Economic Regulation Department.

Regional Programmes

36. Tanzania believes in regional cooperation, it also knows that that its own skies will continue to be safe and secure only if those of the neighbouring countries are similarly safe and secure. Therefore, working together with the other EAC Partner States, Tanzania has embarked on two complementary projects - the EAC Civil Aviation Safety Project (CASP) and the COSCAP-EAC Project. The COSCAP-EAC project, which is expected to last some 32 months, is a straight implementation activity that addresses common deficiencies identified by ICAO safety oversight audits. This project is a forerunner to the EAC safety oversight agency that the CASP Project seeks to establish. The feasibility study for the establishment of this urgency is a parallel project that is due to commence in August this year. When the two projects coincide in three years time what will emerge is an EAC Regional Safety Oversight Agency with harmonisation of regulations and provision of services in a more economic, efficient and effective way.

SUMMARY AND CONCLUSIONS

37. Tanzania International airports are amongst the safest and most secure in Africa. This status has been reached out of definite efforts in terms of both planning and implementation to render the skies so following ICAO SARPs and always striving to conform to them and do even more. You will find that Tanzania fully supports and intends to comply with the standard that ICAO has introduced in Annex 14 for the certification of international airports to be implemented end of this year. As a measure towards compliance, it has already amended its Air Navigation Regulations to require licensing of aerodromes, including Government aerodromes. This amended regulations is already in force and we plan to introduce the concept starting from July 2003.

38. As long as TAA can provide and accommodate investors into aircraft maintenance, the TCAA has already in place Air Navigation Regulations, Airworthiness Requirements, machinery and capability to provide adequate safety oversight and continued surveillance of such facilities in compliance with ICAO SARPs. The availability of high standard maintenance facilities will attract more investment into aircraft acquisition as operators have adequate local maintenance to access hence minimising operational cost by using foreign maintenance facilities.

39. The air transport industry in Tanzania is still under developed; as a result traffic is low and air transport activities minimal despite the fact that there is a big number of airports to support. Whereas low level of economic activities and low income for a large proportion of the Tanzania population could have contributed to this, the current trend towards liberalisation and increase in commercial activities, the public-private-partnership, and commercial approach to business are expected to bring about the required critical economic mass to kick grow the air transport market and hence the activities. The prevailing economic promotion environment should be grasped to develop these airports. We believe that with enough investment and commercial activity they should be able to support themselves and start the investment-development circle rotating. The pair of investment and development in these airports might sound like the egg and chicken riddle – which one comes first; but it shouldn't be – the logical sequence is that of making investment in a virgin market to trigger off development, not the other way round – development cannot start without investment; therefore investment is the only agent between the two that can break the stalemate to get revolving. We expect the parties with the necessary financial and technical means to of disentangle this conundrum by taking calculated risks to open up these airports to profitability and prosperity.