Strategic Planning
For the Current and Future
African Aviation Professionals

Presented by:
Abel Karim Elsayed
Dean of EAA / CAMTC
Before looking to the future, we should answer an important question as a basis for the approach and methods. This question is:

Do we look to the future just to predict and anticipate how the future will look like and try to cope with the anticipated concepts of future?

or

We look to the future to formulate and shape it in order to build our future.

The positive vision for the future is based on the importance of participation in establishing and building the future.
Adopting the positive view in our looking to the future and planning to participate in building our future means the selection of strategic thinking.

**Strategic Thinking** focuses on access to the rational imaginary target and subject, and take into account a comprehensive view of the surrounding environment.

It studies all the expected elements of success as well as principles, values, goals, and resources.

**Strategic thinking** considers all the skills necessary to achieve the objectives in good quality and efficiency to reach the highest degree of safety based on the methodology of Scenario planning.
Organizational Development as a concept has passed through three phases reflected the strategic thinking of each stage of the evolution of thoughts as follows:

1. **Bureaucratic concept developed by Max Weber in 1947**

   It is a concept based on identifying the authority lines and sequencing in command within a hierarchy manner of fixed procedures to determine the ways of work.
2 - **Management by objectives and results developed by Peter Drucker in 1964**

This concept represented a revolution and breakthrough in the development of behavioral sciences and organizational behavior in the administration and through the use of the principles of management by objectives.

3 - **Finally, the concept of learning organizations developed by Peter Sang 1990**

The Learning organization is an organization in which individuals use learning to reach the goals.

This concept represents a fundamental turning point in the activities of organizations, This concept represents a continuous source of learning for development.
We must consider the properties of the current era:

- Just continue to do what we are used to do without developing or updating may be a risk in today's rapidly changing world.

- We must focus on performance, learning, development, creativity and innovation, not just to achieve the objectives.

- If the learning and training approach is vital and important for various fields of life, it is more and more necessary, for the field of aviation, which is the most obvious mirror that reflects technological progress and modernization.
Properties of our ERA

While the first decade of the twenty-first century is approaching its end and after the evolution of the concept of learning organizations since more than two decades, we believe that the learning only is no longer enough for organizations in the pursuit of excellence.

Organizations should strive for excellence trying to adopt ways that makes learning faster, deeper and more effective in operations.
Properties of our ERA

- It is necessary for training organizations to follow roads and paths focusing to provide aviation community with efficient and effective products and services achieving the desired progress.

- The organizations that look for efficiency and effectiveness should focus on increasing the safety and security benefiting of distance learning and electronic learning technologies.
Technology can be viewed as the tools and methods that are used for the purpose of the application of science, to complete human capabilities, and to meet the needs arising under the environmental conditions and historical stage.

It can also be looked at as the application of scientific knowledge, or the art of using science.
The Egyptian Academy positively looks at the future, based on the strategic thinking recognizing the importance of playing an active role in the formulation, shaping and building the future, not just to predict the future and to cope with its requirements.

EAA believes in the definition of technology as the art of practical application of Science in Industry.
EAA focuses on the growing use of technology and \textit{(adaptation)} in believing that technology is a beneficial approach for all aspects of life including training activity.

EAA also applies the policy of using and adapting the use of technology for training purposes aiming at increasing the efficiency and effectiveness of the training process.

Technology is a good mean for formulating and shaping the future as the aviation trainees at the moment, will be the leaders and managers of aviation in the future.
EAA started with an important question, namely:

- How do we plan to maximize the academy use of technology in the field of training .... and how to adapt technology to serve the purposes of training in various areas?

- If we move to maximize the use of technology to be adapted for training purposes, the Academy has given applied models in this regard.

- There are many examples and models on the use and adaptation of technology in the field of training in EAA.
Explosive fleet growth sparks pilot demand:

- The world needs about **235,000** additional pilots until **2020**. This means more than 19,000 pilots annually.
- Fleet growth of **17,000** aircraft by **2020** is estimated.
- Africa & Middle East need around **2,000** Pilots annually.
- Doubles of other crew members are needed.
Africa Current Need & Demand

What are we doing to answer the current training needs in different fields?

Did we predict the future training needs in different fields?

What did we do to answer the future training needs in different fields?
A methodical approach to meeting challenges

- Strategic thinking in planning
- Standardization and Harmonization
- Competency Based Training (performance focus)
- Outcomes Focus (Knowledge, skills and attitudes)
- Evidence based Training
- Operational environment
- Initial and continuing training
- Integrated systems training HME
- Education together with training
- ATO Certification Requirements

EAA has been working through this process a long the last 5 years using a rigorous instructional systems design methodology
The Need to Change

- As the aircraft change …
- As the airspace changes …
- As the demographics of aspiring aviation professionals change …

We must also change
✓ how we train
✓ our regulatory structure,
✓ our methodologies
✓ and our tools

What we must never change are our objectives of high standards of quality and safety.
EAA Focal Points

- Updated Regulations according to ICAO SARPs and CAA Regulations…
- Standardized and Harmonized TPMs
- International STPs
- Latest of the art Training Facilities …
- Qualified experienced Instructors
- Safety, Quality and Customer Focus …
- Cooperation and partnership
- Sufficient Increasing Capacity
- Effective and flexible Structure
EAA Structure

- An Autonomous Part of Civil Aviation…
- Five Specialized Colleges
  - MFC / ATCC / CAMTC / AEC / ITC
- 3 Airports for training
- Research and Development Unit
- Program Development Unit (TRAINAIR)
Progress Achieved at EAA
Pilots and Airline Operations

Integrated Education & Training Programs
Theoretical / CBT / Simulation / Practical Flying
Progress Achieved at EAA
Pilots and Airline Operations

Training Environment
Progress Achieved at EAA
Pilots and Airline Operations

Standard Training Programs

Egyptian Aviation Academy
Progress Achieved at EAA
Pilots and Airline Operations

- 48 Aircraft for Training Including VLJ
- Annual Capacity of 300 Pilot
Recognition by ICAO as a Regional Training Center
Progress Achieved at EAA
Air Navigation and Air Traffic Management

Latest Of the Art Training Facilities
Progress Achieved at EAA
Air Navigation and Air Traffic Management

ATCC COURSES.

AIS COURSES.

COMMUNICATION OPERATION COURSES.

AIR TRANSPORT COURSES.

SPECIAL COURSES.

ON REQUEST COURSES.

AIR TRAFFIC SERVICES MANAGEMENT COURSES

ACADEMIC COURSES

Comprehensive Training Programs
Progress Achieved at EAA
Air Navigation and Air Traffic Management

Recognition by ICAO as a Regional Training Centre

Egyptian Aviation Academy
Progress Achieved at EAA
Airport Operation / Aviation Engineering

Aircraft Maintenance / Aircraft Avionics /
Radio Maintenance / Airport Engineering
Airport Operation & Management
Aviation Security
Progress Achieved at EAA
Airport Operations / Management / Aviation Engineering

Aviation Medicine Programs

Egyptian Aviation Academy
Recognition by ICAO as a Centre of Excellence for the Aviation Medicine courses
EAA Partners

- Int. Civil Aviation Organization.
- Int. Air Transport Association.
- Flight Safety Foundation.
- L’Ecole Nationale De l’aviation Civile – France.
- Air Business Academy.
- Aerospace Medical Association
- African Civil Aviation Commission.
The approach of the academies and training centers should be based on a positive look at the future using and adapting the technology as one of the most important tools for building and shaping the future.

Training is viewed as an organized activity aiming at developing knowledge, skill, capacity and capability to influence attitudes and behavior in the desired direction to achieve the objectives.
The challenges facing the use of technology require the combined ideas and efforts to develop appropriate solutions, including maximization of the benefits of technology through the adoption of the advanced training centers by the International Civil Aviation Organization.

Those centers that reached reasonable level of developing its capabilities and adapting the use of technology in the training process can be recognized by ICAO to become specialized centers and bright spots of radiation worldwide.
Conclusion

✦ Integration and exchange of experiences and cooperation between African Aviation Academies and training centers is vital for better training environment.

✦ It is Proposed that AFCAC set up a scenario plan for recognizing specialized training centers that have been modernized to be responsible to raise the rates of efficiency in the training and qualify instructors and other training staff.
ICAO Recognition of specialized centers can assure the efficiency and effectiveness of the training process in these Civil Aviation Training Centres so as to obtain the highest levels of safety and security.

Aviation Training academies should make use and adaptation of technology aiming at achieving safe, efficient and economic operations.
Conclusion

✓ The Egyptian Aviation Academy has reached an advanced level in preparation and implementation of standard training that is recognized and approved by ICAO.

✓ The Egyptian Aviation Academy has increased its capacity along the last few years ready to actively share in answering the demand existing in the African Civil Aviation countries. It is also ready to provide the African countries with the technical support in different ways.
It is so important to take advantage of the great technological advances in the field of training for the purpose of developing aviation training centers.

AFCAC can benefit from the academies that have reached the level of excellence so as to absorb the increasing training demand for civil aviation training in Africa.
Conclusion

Our view for the next generation in the field of civil aviation starts from the look to the future with an approach focuses on participation in building and formulating the future based on optimizing the use and adaptation of technology for the purposes of high efficiency and effectiveness with the highest levels of.
Words to think about

- STANDARDIZE AND HARMONIZE
- STRATEGIC THINKING AND PLANNING
- STUDY, VERIFY AND ANALYSE OUR CURRENT AND FUTURE NEEDS
- ASSESS, DEVELOP AND INTEGRATE OUR CAPABILITIES
- ESTABLISH IMPLEMENTATION AND FOLLOW UP MECHANISMS
THANKS FOR YOUR ATTENTION...
2nd Pan-African Training Coordination Conference
Cairo, Egypt, 22-24 June 2010

The Kenyan Concern – Aviation Training Needs in Africa

Presented by: Justin Ng’g – A. Director EASA
Introduction:

Pursuant to recommendation N°5/8 of S-RAN/AFI, the First Conference of African Civil Aviation Training Centers was organized in Niamey (Niger) from 17 to 19 February, 2009, under the co-sponsorship of AFCAC and ICAO.

Two resolution were reached.
Those resolutions were:

1. To train for the future - pooling of resources for an efficient training (Competency-based Approach),

2. To provide for an overall training policy for Africa – the need for a safety oversight system and a gap analysis to help training centers better address the deficiencies that have been identified by ICAO audits.
Steps to Take:

To achieve these resolutions, it is the view of EASA that; the African States should:

- Provide adequate training in various areas of the industry, e.g. Flight Safety and Civil Aviation Regulations.

- Improve on Quality Management System programmes so as to meet the global regulatory requirements.
The Kenyan Concern

The serious concerns for the AFI aviation sector is the lack of:

- Adequate and skilled human resources, and
- Modern training facilities.

The solution rests with improvement of the existing public aviation training centers and instructional staff development in their respective areas of expertise.
To alleviate some of these problems, East African School of Aviation (EASA) has embarked on a pragmatic approach to:

- Establish a TOT program for Flight Safety Inspectors;
- Expand the training to cover appropriate flight safety programmes such as ATPL ground school training, with the possibility of conducting PPL and CPL in the near future.
The Kenyan Concern cont.....

- Create a more suitable training environment that offers possibilities for expansion;
- Expand or diversify into demand-based training activities offered at the institution to ensure sustainability;
- Develop and improve on human capacity to meet the dynamic changes in aviation technology.
Capacity Development & Facilities Enhancement

EASA is in agreement with ICAO-ACIP Working Group of the Training Experts in that:

- To avoid wasteful duplication and competition among themselves, the AFI Training Institutes should instead enhance cooperation through existing training capacities, capabilities, facilities and research for higher learning (AVSEC programmes).
Modernization of and upgrading of these training facilities should be addressed effectively by the respective governments to bring the once eroded confidence back to the aviation training industry.
Conclusion

1. AFI Training Institutions should take the business approach to training management without losing focus on the mandate to effectively meet civil aviation personnel requirements through:

- Consolidating the capacities for courses development and delivery,
- Developing proactive approach to marketing and public relations targeting both the regional and global markets.
Conclusion

The Institutions should develop human capacity in core areas of training and establish succession plans so as to attain the academic pedigree by:

- Effective training - human capacity building is the fundamental base for any sustainable development of cooperation.
- Sound resource management - creative approaches to tackling skills and research issues that embed a culture of innovation and technical excellence.
Teamwork is the ability to work together toward a common vision. The ability to direct individual accomplishments toward organizational objectives. It is the fuel that allows common people to attain uncommon results.

Andrew Carnegie

THANK YOU !!!
NACoE Objectives

- To produce highly skilled human resources in the field of aerospace in line with the requirements and expectations of the (South) African aerospace industry
- To conduct leading edge, commercially significant technology research projects in the field of aerospace in a partnership model
- To establish a national knowledge repository in the field of aerospace
- To conduct technology transfer activities
- To establish and maintain the core NACoE functionality at Wits University, in collaboration with other leading Higher Education Institutions, industry and other stakeholders
The NACoE conducts leading edge, commercially significant technology research and development for the aerospace industry in South Africa that would not have otherwise happened, and enhances the competitiveness and sustainability of the industry.

Key outputs of the NACoE are:

- new or more competitive technologies/products
- new knowledge
- highly skilled human resources
- technology transfer
Government:
- Policy
- Strategy
- Context
- Funding

Human Capital Programmes
[core funding]

Access to education
More students

Research Programmes
[core funding]

Capacity at Universities
Facilities
Academic staff

Positive Impact:
Competitiveness of South African Economy / Industry

Industry partners
University partners
Curriculum, internships
Mentorship, internships
Other stakeholders
[partner funding]

Industry partners
Emerging research focus
Applied research
Other stakeholders
[partner funding]
NACoE Programmes and Projects

- Programme 1: Human Capital Development
- Programme 2: Research & Development
- Programme 3: Knowledge Management
- Programme 4: National Facilities
- Programme 5: Certification and Conformity Assessment
- Programme 6: Project Management
HCD – Projects

- Project 1: Bursaries and Scholarships
- Project 2: Retention & Promotion
- Project 3: Experiential Training
- Project 4: Studies
- Project 5: Course & Curricula Development
- Project 6: Special Projects
Special Projects: AeroAfrica-EU

To create a platform for enhancing aeronautics and air transport research and development (R&D) cooperation between the EU and Africa – starting with SA

Participants:

- University of the Witwatersrand, South Africa
- National Aerospace Centre of Excellence, SA
- Aerospace Valley, France
- Cranfield University, UK
- Fraunhofer-Gesellschaft zur Förderung der Angewandten Forschung E.V. Fraunhofer, Germany
- Department of Science and Technology, South Africa
- Kungl Tekniska Högskolan, KTH, Sweden
2009 FP7 Call analysis workshops held with broader aerospace community in attendance

Addressed were AeroAfrica-EU overview, FP7 Call Analysis, FP7 project processes & DST supporting instruments

Potential FP7 collaboration areas were noted

2010 FP7 Call due in July – various workshops

Workshop at Cranfield 19 July
NACoE : Suggestions

- Capacity, demand, harmonization and quality all are important
- Need to also address the learner feeder stream
- Aviation / aerospace competes with other careers
- Promote aviation as preferred career choice - awareness
- Need to identify appropriate school subjects early
- Career growth opportunities essential
- Partnerships essential – commitment vs involvement
- Structure phased approach – milestones & reviews
Summary: NACoE

- NACoE have structures, processes and networks in place to support proposed implementation actions of ACIP such as:
  - development of training capacity
  - the process of development and maintenance of standardized training courses / curricula
  - participate in an African Training Advisory Board to promote best practices, develop minimum standards and to monitor implementation
  - participate in an Association of African Training Organizations
- This can be either for SADC and / or reaching out into the Continent in partnerships
THANK YOU