No. 212 **22 February 2008**

SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with Regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

Aerospace Operations

registered by Organising Field 10, Physical, Mathematical, Computer and Life Sciences, publishes the following Qualification for public comment.

This notice contains the title, field, sub-field, NQF level, credits, and purpose of the Qualification. The full Qualification can be accessed via the SAQA web-site at **www.saqa.org.za**. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, SAQA House, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the Qualification should reach SAQA at the address below and ***no later than 20 March 2007.*** All correspondence should be marked **Standards Setting – Aerospace Operations** and addressed to

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SOUTH AFRICAN QUALIFICATIONS AUTHORITY

QUALIFICATION:
National Diploma: Aeronautical Information Management Practice

SAQA QUAL ID	*QUALIFICATION TITLE*		
60549	National Diploma: Aeronautical Information Management Practice		
ORIGINATOR		*PROVIDER*	
SGB Aerospace Operations			
QUALIFICATION TYPE	*FIELD*	*SUBFIELD*	
National Diploma	10 - Physical, Mathematical, Computer and Life Sciences	Physical Sciences	
ABET BAND	*MINIMUM CREDITS*	*NQF LEVEL*	*QUAL CLASS*
Undefined	240	Level 5	Regular-Unit Stds Based

This qualification does not replace any other qualification and is not replaced by another qualification.

PURPOSE AND RATIONALE OF THE QUALIFICATION
Purpose:

The Qualification will enable the qualifying learner the competencies to function within both a national and international AIM context. Upon completion of this qualification the learner will be able to collect, collate, format, disseminate and store quality and timeous aeronautical information in accordance with global standards. It also provides a foundation for further learning in related fields.

This Qualification can be used in the recognition of prior learning process to assess and recognise workplace skills acquired without the benefit of formal education and training. For the new entrant, this Qualification describes the learning outcomes required to participate effectively in a structured workplace. For education and training providers, this Qualification provides guidance for the development of appropriate learning programmes and assessment documentation. For employers, this qualification enables skills gaps to be identified and addressed ensuring that productivity levels are increased and business objectives achieved. The combination of learning outcomes that comprise this Qualification will provide the qualifying learner with vocational knowledge and skills appropriate to the context of Aeronautical Information Management. It will also equip learners with a foundation for further intellectual development, opportunities for gainful employment and reward for contributions to society. This Qualification will provide the Air Traffic Management (ATM) community with qualified AIM Practitioners, thereby facilitating social and economic transformation, empowerment, and upliftment in the Industry and country in general.

The qualifying learner will be able to:

- Demonstrate an understanding of the aviation environment.
- Perform the AIM operational roles and functions in the interest of aviation safety.
- Perform general AIM support roles and functions.
- Perform AIM roles, responsibilities and functions within an integrated management system.

Rationale:

As a result of new generation aircraft, Global standardization and harmonization in Air Traffic Management, increase in air traffic and new communication, navigation and surveillance (CNS) technology a demand has arisen for greater public safety as a critical requirement in the aerospace industry.

The rapidly changing environment of Air Traffic Management (ATM), with the requirement to handle ever-increasing flight-critical aeronautical information, has imposed the need for Aeronautical Information Services (AIS) to transcend from a product centric service to a data-centric Aeronautical Information Management (AIM) environment. Appropriately qualified and experienced staff in sufficient numbers are a pre-requisite for an AIM function to provide Quality Assured, Safe and Timely aeronautical information.

This qualification contributes to the South African aerospace industry, which impacts on the safety of people and goods for economic development. Learners who have achieved this qualification will contribute to reduction of risk in the aerospace industry. Qualifying learners that will typically embark on this qualification are Aeronautical Information Management Practitioners.

This Qualification will facilitate the development of a professional community specifically for Aeronautical Information who are able to contribute towards a safe and productive ATM/CNS system. Furthermore, this Qualification will ensure quality assured, timeous aeronautical information in support of the aerospace industry. An underlying supposition for the purpose of this Qualification is the notion of effective performance. This necessitates a certain repertoire of knowledge and skills considered as a pre-requisite to effective performance.

This Qualification enables the learners to develop competencies such as self-discipline, critical decision-making, safety, situational awareness, judgement, logical reasoning, ethics, integrity, and responsibility, to the operation of safe, efficient and comprehensive national and international aerospace systems.

This Qualification has been generated in accordance with the national and international legal framework and also provides a vehicle to bring South African Aeronautical Information Management standards in line with international best practice.

RECOGNIZE PREVIOUS LEARNING?
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LEARNING ASSUMED IN PLACE
- Communication at NQF Level 4.
- Mathematics at NQF Level 4.
- Geography at NQF Level 4.
- Computer Literacy at NQF Level 3.

Recognition of Prior Learning:

The Qualification may be obtained in whole or in part through the process of Recognition of Prior Learning. Learners who may meet the requirements of any Unit Standard in this Qualification may apply for recognition of prior learning to the Relevant ETQA, and will be assessed against the assessment criteria of the exit level outcomes of this qualification and specific outcomes for the relevant Unit Standard/s.

Anyone wishing to be assessed against this Qualification may apply to be assessed by any assessment agency, assessor or provider institution, which is accredited by the relevant ETQA.

Access to the Qualification:

Open access: Learners with certain physical (visual, auditory etc) impairments may find it difficult to complete the qualification successfully without meeting certain medical requirements.

QUALIFICATION RULES
The qualifying learner will achieve this Qualification by complying with the following rules of combination for the accumulation of credits:

Learning Component Credits:

- All fundamental Unit Standards 71.
- All Core Unit Standards 107.
- Elective Unit Standards 62.

Total Credits 240.

Learners may choose to complete an area of specialisation within the elective component of this Qualification. Should learners choose an area of specialisation, they are required to complete all the Unit Standards listed within the specialisation and if any further credits are required to complete the 62 credits for the elective category, these may be chosen from any of the remaining specialised or general elective unit standards.

EXIT LEVEL OUTCOMES
On completion of this Qualification learners are able to:

1. Demonstrate an understanding of the aviation environment.

2. Perform the AIM operational roles and functions in the interest of aviation safety.

3. Perform general AIM support roles and functions.
- Note: These roles and functions are in support of customer care, change management, financial resource and human resource management.

4. Perform AIM roles, responsibilities and functions within an integrated management system.

ASSOCIATED ASSESSMENT CRITERIA
Associated Assessment Criteria for Exit Level Outcome 1:

1.1 Legal frameworks related to the ATS environment are identified for interpretation and application purposes.
- Range: Legal framework refers to national and international: statutory requirements, regulations, acts, policies, procedures, agreements.

1.2 The roles and responsibilities of AIM are evaluated by explaining the inter-relationship between aircraft flight systems, aerodrome facilities and aeronautical navigation facilities.
1.3 AIM is defined in terms of its roles, responsibilities and functions within the ATM concept.

Associated Assessment Criteria for Exit Level Outcome 2:

2.1 Communication strategies are used to perform operational and co-ordination functions.
- Range: Strategies include but are not limited to structure such as coding and decoding, flow of information, media inter/intra-relationships.
- Range: Strategies include but are not limited to format such as international, national and organisational.
- Range: Strategies include but are not limited to conventions such as measurements, terminology, style, protocols.

2.2 Meteorological information is interpreted to determine its influence on aeronautical operations.
• Range: Meteorological information include but not limited to synoptic charts, terminal area forecasts (TAF), meteorological area reports (METARS) and significant meteorological phenomena reports (SIGMET).
2.3 Elementary principles of aircraft navigation theory are applied in order to produce aeronautical information for navigational purposes.
• Range: Elementary principles will exclude to the physical piloting of an aircraft.
2.4 Aerodynamic principles of flight are explained to reflect their impact on the physiology of flight.
• Range: Aerodynamic principles include but are not limited to lift, drag, weight, thrust, flight controls, flap systems, energy management.
2.5 Aeronautical and topographical maps and charts are interpreted for the purpose of providing aeronautical information.
2.6 Data management systems are described to reflect their uses, impact on data management, types of systems, features and end user tools.
• Range: Data includes both static and dynamic.
2.7 Team resource management strategies are utilised in support of AIM operational requirements.

Associated Assessment Criteria for Exit Level Outcome 3:

3.1 Communication media are utilized for specific audiences in order to perform AIM operations in accordance with protocols and organizational procedures.
• Range: Communication media include but are not limited to ATN/AFTN, e-mail, facsimile and telephone.
3.2 Responsibilities and functions are performed to reflect adherence to organisational ethics.
• Range: Organizational ethics include but are not limited to professional conduct aspects such as dress code, telephone etiquette, and personal interaction.
3.3 Responsibilities and functions are performed to demonstrate contribution to the achievement of team goals and objectives.
• Range: Contribution could include timeframes, negotiating, standards of the activity.
3.4 Time is managed in order to produce and provide aeronautical information within specified time frames.
3.5 General AIM support roles and functions are performed in accordance with laid down quality procedures.
3.6 Information is disseminated in support of the AIM business environment in accordance with organisational procedures.
• Range: Information includes but is not limited to customer care, change management, financial resource and human resource management.
• Note: Dissemination can be undertaken for clients, stakeholders, roleplayers and interested parties.
3.7 The business environment and its many facets are described to reflect their impact on AIM.
• Range: Facets include but are not limited to type of businesses, ways of operation, structures, type of industry, generic business processes, corporate culture and regulatory requirements.

Associated Assessment Criteria for Exit Level Outcome 4:

4.1 Quality assurance principles are applied to ensure information integrity in support of aviation safety.
• Range: Principles refer to but is not limited to: organisational and internationally accepted quality related principles embodied by systems such as ISO standards.
4.2 Safety principles are applied in line with the nationally and internationally accepted aviation legal framework.
• Range: Legal framework refers to but is not limited to Acts and Regulations that pertain to the aviation industry.