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Aeronautical Information Services
ATC Operations Building
Yangon International Airport
Mingaladon, Yangon 11021
MYANMAR

AIC

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1 February

APPROACH AND LANDING ACCIDENT REDUCTION MEASURES

1. GENERAL

- 1.1 This Circular is issued by the Department of Civil Aviation, Myanmar and contains information about standards, practices and procedures acceptable to the Authority.

2. PURPOSE

- 2.1 This Circular requires the implementation of Approach and Landing Accident Reduction (ALAR) Measures by Myanmar AOC Holders (air operators). Its aim is to reduce the risk of Approach and Landing Accidents (ALAs) by increasing the awareness of air operator management and flight operations personnel of the factors which contribute to ALAs and by modifying, as appropriate, operator policies, procedures, and training related to ALAR.

3. APPLICABILITY

All Myanmar AOC holders operating aircraft exceeding 5,700 kilograms maximum certificated take-off mass.

4. CANCELLATION

This is the first Circular issued on this subject.

5. EFFECTIVE DATE

This Circular is effective on 16 July, 2006.

6. BACKGROUND

- 6.1 By far the largest number of airplane hull losses worldwide are the result of Approach and Landing Accidents (ALAs). Controlled Flight into Terrain (CFIT) comprises the largest category of ALAs. Major initiatives have been undertaken on a global basis to reduce the world wide accident rate. The FAA Commercial Aviation Safety Team (CAST) and the JAA Joint Strategic Safety Initiative (JSSI) are jointly involved in data-driven studies of accidents world wide in order to facilitate the development of global intervention strategies to counter the precursors of those accidents. A major focus of both of these initiatives is the reduction of ALAs, including CFIT.
- 6.2 In keeping with the ICAO Global Aviation Safety Plan (GASP), and in consonance with other global strategies to reduce accidents, an ICAO-administered programme within the Southeast Asia area, known as Cooperative Development of Operational Safety and Continuous Airworthiness Programme (COSCAP-SEA), has undertaken the task of implementing existing, globally-developed safety interventions among its Member States. This implementation is being done through a component of COSCAP-SEA known as the Southeast Asia Regional Aviation Safety Team (SEARAST). COSCAP-SEA and SEARAST membership includes the aviation regulatory authorities of its 12 Member States/Administrations within the Southeast Asia area, together with Industry Partners and Associate Members (donor agencies).
- 6.3 One of the first major products of the world wide effort to reduce hull losses is known as the Flight Safety Foundation (FSF) ALAR Tool Kit, which was developed by the FSF ALAR Task Force. The ALAR Tool Kit contains, on one CD-ROM, a number of checklists, briefing notes, videos, presentations, and other

documents for use by operators (and other relevant organizations) to enhance ALA awareness and to inspire changes in corporate cultures, SOPs, training, and equipment. Although the content of the Tool Kit was designed for operations using large, turbojet aeroplanes, a number of the tools are appropriate for application in most any large, fixed-wing operation.

- 6.4 The First SEARAST Meeting was held in Bangkok on 26 and 27 March, 2002, and was attended by representatives of COSCAP-SEA Member States/Administrations and by the majority of airlines which are regulated by those Member States/Administrations. A comprehensive review of the ALAR Tool Kit was undertaken in the course of the Meeting, and it was concluded that the regulatory authorities would act to ensure implementation of the various elements of the ALAR Tool Kit among the operators which they oversee.
- 6.5 This Circular outlines the steps to be taken by Myanmar air operators to review and implement the various interventions contained in the FSF ALAR Tool Kit.

7. GENERAL ACTIONS REQUIRED OF OPERATORS

- 7.1 Consistent with the conclusions of the First SEARAST Meeting, action must be taken by all Myanmar air operators of aircraft exceeding 5,700 kg maximum certificated takeoff mass certificated by the Union of Myanmar, within 12 months of the effective date of this AC to ensure that each component tool of the ALAR Tool Kit is reviewed and implemented to the extent that the tool is relevant to the operation and is consistent with company operating philosophy. When a thorough review of a tool suggests that a change to operator SOP is warranted, operators will take appropriate steps. Operator training programmes will be amended as necessary to incorporate specific ALAR modules.

8. SPECIFIC ACTIONS REQUIRED OF OPERATORS

- 8.1 Tool Kit review and implementation: The following is a brief description of each component of ALAR Tool Kit together with specific steps to be taken by all air operators concerning each component:

- a) Standard Operating Procedures Template - contains examples of subject areas which should be addressed within an operator's manual system. The list is not all inclusive and all of the items are not relevant to every operation. Nonetheless, the Template (which is derived from FAA Advisory Circular 120-71) is recognized by industry as being a valuable resource for identifying subject areas for which guidance should be provided to crew members and other operations personnel.

Required Action: Operators will review the content of the ALAR Tool Kit Standard Operating Procedures Template and compare to the guidance contained in their manual system. If there are subject areas listed in the Template which are relevant to the operator's circumstances and for which guidance is lacking or insufficient, operators will make changes or additions to their SOP as necessary.

- b) Approach and Landing Risk Reduction Guide - contains a checklist, in four sections, which should be reviewed by chief pilots, line pilots, dispatchers, or schedulers as specified in the introduction to each section. It is a strategic (long term) planning tool to evaluate specific flight operations and to improve crew awareness concerning ALAs.

Required Action: Operators will complete the checklists contained in the ALAR Tool Kit Risk Reduction Guide in order to identify possible shortcomings in organization, equipment, and training. Where shortcomings are indicated, operators will take corrective action.

- c) ALAR Briefing Notes: contains 34 documents, on a variety of subject areas, which are based upon the conclusions and recommendations of the ALAR Task Force. The briefing notes were developed as an aid to education and training and can be used by airline management and flight operations professionals. Provided that they do not conflict with current company SOP, a number of the briefing notes may be used "as is" to convey useful information to line pilots. For chief pilots and other management personnel, the briefing notes serve as an additional tool to evaluate the adequacy of an operator's organization, policies, and procedures which have a direct bearing on approach and landing accident reduction.
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Required Action: Operators will review the content of the ALAR Briefing Notes and decide to what extent the content of each note can be incorporated into company manuals and/or used in training and safety awareness programmes. When the content of a briefing note is relevant to an operator's specific operation, the information in the note will be made available to flight operations personnel in some form. When the information, recommendations, or procedures contained in any note (provided that the note is relevant to the operator's specific operation) conflicts with current SOP, the operator will either modify the information contained in the note before making it available to flight operations personnel or modify their SOPs in consideration of the information presented in the note.

- d) Approach and Landing Risk Awareness Tool - A one page (two-sided) document designed to assist flight crews in evaluating risk factors associated with each approach and landing. This tool is intended for use in the cockpit to supplement the normal approach briefing in order to increase the awareness of hazards associated with a particular approach.

Required Action: Operators will review the Approach and Landing Risk Awareness Tool and consider incorporating it in its SOP as an additional briefing item prior to approach. It is recognized that cockpit crews already have a high workload prior to descent, particularly on short sectors, and this may dictate against using the Tool on a routine basis. If the operator considers it impractical to use the Tool routinely as an additional briefing item, it should nonetheless be distributed to crews for their information, included in the cockpit as an additional resource, and made part of training programmes and check flight briefings in order to increase ALA awareness among flight crews.

- e) CFIT Checklist - A checklist, divided into three parts, in which numerical values are assigned by the operator to various factors which have a bearing upon the CFIT posture of the airline. A numerical total is calculated to arrive at a CFIT Risk Score. A negative Risk Score will serve to highlight factors in the operation which may require attention in order to reduce the risk of CFIT. This tool has been available for a number of years.

Required Action: Operators who have not already done so will follow the CFIT Checklist to calculate a CFIT Risk Score for their operation(s) and will address areas of weakness which are brought to light by the Checklist.

8.2 ALAR Training: Approved operator training programmes will reflect the following provisions: ALAR classroom training will be provided to all flight crew members for the purpose of increasing awareness of ALA causes and means of prevention. Such training will be designed in consideration of all of the major items contained in the ALAR Tool Kit. Every flight crew member will receive at least one 4 hour block of classroom training at least one time, either as a stand-alone training segment or in connection with another category of training such as initial, upgrade, or transition training. An appropriate training segment on ALAR (number of hours not specified) will also be included in recurrent ground training programmes for flight crew members. ALAR awareness may also be increased by incorporating ALAR items in flight simulator training segments, proficiency check briefings, briefings for line checks, etc. The major tools in the ALAR Tool Kit which are summarised above provide a wealth of information which can be used in training programmes. Additionally, there are a number of other items contained in the ALAR. Tool Kit which are will be highly useful in the development of an ALAR training programme. These include:

- a) ALAR Operations Training - Data, procedures, and recommendations for pilots presented on 32 slides with explanatory notes.
- b) An Approach and Landing Accident: "It Could Happen to You" - A 19-minute video presentation of specific data, findings and recommendations generated by FSF ALAR Task Force studies.
- c) Pilot Guide to Preventing CFIT-CFIT accident data and lessons learned, plus a review of approach obstruction-protection criteria, presented on 43 slides with explanatory notes.
- d) CFIT Awareness and Prevention - A 32-minute video presentation of CFIT statistics, plus analyses of three representative CFIT accidents and how they might have been avoided.

- e) Air Traffic Control Communication - Improving pilot-controller communication and understanding of each other's operating environments, presented on 22 slides with explanatory notes.
- f) Selected Flight Safety Foundation Publications - A large reference library containing previously published FSF articles concerning ALAs and CFIT.

9. IMPLEMENTATION TRACKING

9.1 Department of Civil Aviation will track the progress of Myanmar air operators in implementing the ALAR Tool Kit and ALAR training. Operators are required to submit to the DCA, on a quarterly basis, the ALAR Tool Kit Implementation Report (Attachment 'A' to this AC), indicating the extent to which each tool is being implemented and the rationale, if applicable, concerning modification of a tool or decision not to adopt a tool. Such reports are to be submitted until all steps which are to be taken are completed.

9.2 The completed reports should be submitted to:

Flight Check Division
Department of Civil Aviation (Myanmar)
Yangon International Airport
Mingaladon, Yangon, 11021

9.3 Re: ALAR Tool Kit Implementation Report

Director General
Department of Civil Aviation

ALAR Tool Kit Implementation Report

- a. This form is designed to assist the DCA and the Team Leader of the Southeast Asia Regional Aviation Safety Team (SEARAST) in tracking the implementation of Approach and Landing Accident.
- b. Reduction measures (using the FSF ALAR Tool Kit) among air operators in Southeast Asia.
- c. Please submit the form to the DCA on a quarterly basis until all steps which are to be taken are completed.
- d. Please include comments concerning your experience in the implementation of any Tool contained in the Kit; particularly if you found it to be inappropriate for application in your operation.

Name of Operator	Base of Operations (City)	e-mail address	Contact Person	Data
	Yangon			

1. SOP Template

Reviewed (Approx %)	Changes made to my SOP, if any. (List subject areas which have been added or modified as a result of SOP template review)

Comments on SOP Template:

2. ALAR Risk Reduction Guide

Reviewed (list by part)	Shortcomings identified (summarise)	Actions taken as a result of shortcomings identified (summarise)

Comments on ALAR Risk Reduction Guide:

3. Approach and Landing Risk Awareness Tool

Reviewed (yes/no)	Incorporated		
	Placed in cockpit (yes/no)	Required Approach Briefing (yes/no)	Other (used in training programme etc.)

Comments on Approach and Landing Risk Awareness Tool:

4. ALAR Briefing Notes

Briefing Note #	Reviewed (yes/no)	Utilised (yes/no) If yes, in what form (made part of SOP, used in training briefing etc.)	Comments
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Comments on ALAR Briefing Notes:

5. CFIT Checklist

Reviewed/Completed (yes/no)	Changes made to SOP, equipment etc. (summarise)

Comments on CFIT Checklist:

6. Training Programme

Operator training and checking programmes will be modified to incorporate ALAR elements and will be approved by the regulatory authority in accordance with regulations and existing policies. The table below is for the purpose of briefly summarising the nature of specific ALAR training elements which have been incorporated in the operator's approved training programme.

Training Category	Briefly describe training elements which have been incorporated
Initial	
Recurrent Ground	
Recurrent Flight	
Other	