



EAC

No.00_2

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INTERNAL EVALUATION PROGRAM

EAC00.2.1 Purpose

This Egyptian Advisory Circular (EAC) provides information and guidance material that must be used for the development of an Internal Evaluation Program (IEP). All certificate holders operating under Egyptian Civil Aviation Regulations (ECARs) Part 101, 121, 137, 141, 142, 145 and 147 shall implement this program within their organization.

The procedures and practices outlined in this EAC are applicable to maintenance departments, flight operations departments, training programs, and all other related aspects of a certificate holder's organization.

EAC00.2.3 Background

The internal evaluation program is a mandatory program. As a matter of policy, the ECAA has always encouraged certificate holders to identify, correct, and disclose instances of noncompliance. Therefore, the development and implementation of an IEP will benefit both the certificate holder and the flying public.

EAC00.2.5 General

Definitions of key terms and a description of the basic elements of an IEP are incorporated in this EAC and are consistent with recognized quality auditing principles. When appropriate, these terms have been tailored to conform to aviation standards and practices.

The standards described herein are intended to help certificate holders develop their own internal evaluation program.

In prescribing standards, rules, and regulations, and in issuing certificates under the Egyptian Civil Aviation Regulations, the ECAA considers the duty resting upon certificate holders to perform their services with the highest possible level of safety. The validity of the air operator certificate or other certificate depends upon the ability to conduct a safe operation in accordance with prescribed rules, regulations, and standards. Through surveillance and oversight, the ECAA verifies that certificate holders are upholding their responsibilities. The IEP is intended to facilitate the ECAA Inspector's advisory and cooperative capacity by providing a procedure for identifying and resolving safety related issues.

EAC00.2.7 Definitions

The following key terms and phrases are defined to ensure a standard interpretation and understanding of an IEP.

Note: An Airworthiness Directive (AD) compliance system, applicable to certificate holders that own, operate, or maintain aircraft/equipment, has been used as an example to further clarify each definition.

(a) Evidence: Evidence, as it relates to this EAC is documented statement of fact, prepared by a certificate holder, that may be quantitative or qualitative and is based on verifiable observations, measurements, or tests. Evidence must generally be in the form of written documentation or reports that support the analysis and review.

This data is necessary to substantiate findings/concerns and enables management or evaluators to determine the root cause(s) of reported findings. Objective evidence generally is determined from a review of appropriate documents or manuals, equipment examination, observed activities, and data obtained during interviews.

(b) Controls: The key procedures, responsibilities, and decision-making positions within an organization, department, division, or functional area.

Example:

A certificate holder who owns, operates, or maintains aircraft/equipment is tasked with the determination of AD applicability. This responsibility is considered a control of the AD compliance system and its design is critical to the overall effectiveness of the system.

As part of an internal evaluation, the controls of the evaluated area must be verified and tested. In some instances, personnel performing the internal evaluation may have to first determine the features of a control. For example, evaluators must first understand how the certificate holder verifies AD applicability before proceeding

with an evaluation of AD completion and associated records. In particular, the evaluation would focus on the effectiveness of procedures that would minimize the risk of simple human error or oversight.

- (c) **Finding:** A conclusion that confirms noncompliance with a specific standard.

Example:

Following a review of status records applicable to powerplant AD completion, company evaluators concluded that two applicable ADs lacked appropriate information substantiating compliance. Evidence to support this conclusion included copies of the actual ADs and referenced service bulletins.

Note: This finding demonstrates noncompliance with an ECAR.

An internal evaluation may also produce a conclusion that is considered a finding, but is not an ECAR compliance issue.

Example:

A Certificate holder has a procedure that requires AD applicability determination be reviewed and signed by quality assurance, engineering, and the Vice President of Maintenance. An internal evaluation of the AD system discovers that for five newly applicable ADs, there is neither a record of the review nor a signature by the Vice President of Maintenance.

Note: This finding demonstrates noncompliance with a standard, i.e. an approved company procedure, rather than a specific ECAR.

- (d) **Concern:** A conclusion, supported by objective evidence, which is not a finding. However, it is a condition that may become a finding.

Example:

Through the use of its IEP, a certificate holder found that it was not scheduling aircraft for AD completion until the AD was within 10 aircraft cycles of expiration. While this procedure had not resulted in any findings, a review of scheduling logs indicated that several aircraft had been flown to within one cycle before performing the required AD work. Additionally, maintenance planners often had to "frantically" reshuffle aircraft schedules to ensure timely AD completion. The evaluators believed these circumstances had the potential to become a finding in the future. Their analysis was documented as a concern and forwarded to management.

EAC00.2.9 Inspection:

The act of observing a particular event or action to ensure that correct procedures, established standards, and appropriate requirements are followed.

Note: The term inspection is defined in this EAC within the context of quality auditing principles. It does not address or define ECAA inspections.

- (a) **Audit:** A methodical, planned review used to determine how effectively business is being conducted. It compares present procedures with established company policies and procedures. The various elements that comprise an effective audit are:

- (1) Personnel interviews;
- (2) Review of appropriate documents;
- (3) Operational observations;
- (4) Selection of various samples;
- (5) Activity inspections; and
- (6) Documentation of results.

An audit builds on the principles of inspection. The results of an inspection assist in the audit objective of determining whether business is being conducted in accordance with established policies and procedures. During an audit, qualified personnel look for the existence of a systemic problem but do not attempt to estimate its extent. The results (findings or concerns) of an audit must be documented and presented to management for corrective action decisions.

- (b) **Evaluation:** An independent review of company policies, procedures, and systems. An evaluation must be a comprehensive and continual process that considers the:

- (1) Results of audits;
- (2) Overall effectiveness of the management organization in achieving stated objectives; and
- (3) Ability of management to respond to new technologies, market strategies, and social or environmental conditions.

The evaluation process builds on the concepts of audit and inspection. An evaluation is an anticipatory process and is designed to identify and correct

potential findings before they occur. Written conclusions and recommendations made as a result of an evaluation must be submitted to Senior Management for appropriate action.

Senior Management: Senior Management, as it relates to this EAC, is the most senior company individual that is responsible for the daily operation of the company. This person may be title as Chairman, Chief Executive Officer, President or equivalent, who has the authority to resolve issues and take appropriate action. The ECAA believes that Senior Management must be aware of the plans, results (findings and concerns), and follow-up actions associated with an IEP. Senior Management may appoint a Senior Management representative and he must be given the responsibility of ensuring that the IEP is properly developed, implemented, and maintained. This management representative must be above the level that directly supervises work accomplishment/procedural development and must have direct contact with Senior Management. This representative does not relieve Senior Management of their responsibilities under this program.

EAC00.2.11 Internal evaluation program

The internal evaluation program is based on the premise that certificate holders are primarily responsible for continuously monitoring and ensuring that their operations are safe and in compliance with the ECARs. The ECAA encourages certificate holders to establish and conduct internal evaluations that embrace the following processes:

- (1) A Continual Process incorporating the techniques of inspections, audits, and evaluations to assess the adequacy of managerial controls in key programs and systems. When deficiencies are identified, corrective action plans and follow-up evaluations are developed and implemented;
- (2) A Review Process, extending beyond regulatory compliance, to determine the causes of deficiencies and detect needed enhancements to company operating practices before deficiencies occur; and
- (3) An Independent Process that has straight-line reporting responsibility to senior management within the organization structure.

The internal evaluation concept stresses self-audit responsibilities of individual employees. This concept also stresses the evaluation responsibility of senior management to ensure that company policies and procedures provide for enhanced safety and compliance within the organization.

EAC00.2.13 Program description

Certificate holders interested in developing an internal evaluation program, are encouraged to include the following essential elements in their program:

- (a) Independent/defined responsibilities;
- (b) Management reviews;
- (c) A process that is continual with prescribed schedules;
- (d) Corrective action plans; and
- (e) Records.

Note: Certificate holders developing an IEP must prepare a plan defining the program's procedures and functional responsibilities. The format for a typical program plan is provided in the Appendix of this EAC.

EAC00.2.15 Independent/defined responsibility

An IEP must identify the person and/or group within the organization who has the responsibility and authority to:

- (a) Perform evaluations, audits, and inspections;
- (b) Identify, record, and provide evidence of findings or concerns;
- (c) Initiate, recommend, or provide solutions to findings/concerns through designated reporting channels;
- (d) Verify the implementation of solutions within a specified time; and
- (e) Communicate and coordinate activities with ECAA personnel on a regular basis.

A certificate holder must identify resources and personnel dedicated to the IEP and describe their organizational independence within the company. Individuals conducting Internal Evaluations must not be responsible for managing work in the areas being evaluated or the tasks being reviewed.

Note: This concept may have to be modified for small operations.

The operational size of many certificate holders may justify the costs associated with having full-time, dedicated resources and personnel in a separate IEP department or group.

For very small operations, an appropriate IEP might consist of developing checklists and a schedule (monthly, quarterly, semiannual, or annual) for accomplishing evaluations. Even in such cases, the review must include a written statement acknowledging the completion of the checklist items and the signature of Senior Management.

Note: Occasional independent oversight of checklist item development and accomplishment must be considered. Certificate holders, using outside resources or independent consultants in support of an IEP, must ensure that these resources are coordinated through a chain of command that reflects independence and contact with Senior Management.

EAC00.2.17 Senior management review

Senior Management must review internal evaluation results to verify that satisfactory corrective actions have been implemented.

The review of internal evaluation information by Senior Management must be documented in reports or other appropriate records generated by the IEP. The certificate holder must decide the frequency, format, and structure for informing Senior Management of internal evaluation plans, results, and follow-up actions. The program must include a diagram that depicts the independence of personnel who perform or supervise internal evaluation functions, including some form of straight line reporting authority to Senior Management. This reporting structure be documented and included as part of the program plan.

EAC00.2.19 Continual process

In order to effectively anticipate potential problem areas and initiate corrections before actual findings occur, an IEP must be a continual program, not merely spot check inspections of operating practices. Stand alone, spot check inspections, will do little more than identify symptoms of potential problems.

A continual process monitors and verifies whether findings are isolated instances or symptoms of policy, procedural, or managerial problems. Scheduled, follow-up, and special evaluations must be performed whenever negative trends are identified.

EAC00.2.21 Internal evaluation schedule

The continual process is a structured activity and it is essential to include a schedule of activities. This planned schedule will serve to verify that the internal evaluation process is:

- (a) Complete and detailed;
- (b) Directed;
- (c) Credible; and
- (d) Recognized by Senior Management.

The schedule of activities must include a periodic review cycle for specific areas covered by the certificate holder's IEP. However, the scheduling process must also be dynamic and allow for special evaluations when trends are identified. In addition, follow-up evaluations must be performed, as necessary, to verify that corrective action commitments were met and that they were effective in eliminating any reported findings or concerns. Planned, Special, and Follow-Up evaluations all comprise an effective internal evaluation schedule.

- (1) **Planned evaluation:** Establishes a schedule of events that will be performed during a prescribed calendar period and divides the complete schedule into phases. This evaluation is scheduled to provide ample flexibility for resources to initiate special or follow-up evaluations.
- (2) **Special evaluation:** Conducted whenever Senior Management identifies special concerns or priorities. May also be initiated based on a review of industry trends, ECAA concerns, or identified internal trends.
- (3) **Follow-Up Evaluation:** Ensures corrective actions were completed and the reported finding or concern has been eliminated. May also be accomplished in response to ECAA surveillance findings.

EAC00.2.23 Corrective Action Plans

An IEP must include procedures ensuring that corrective action plans are developed in response to findings or concerns. Additional procedures must be developed to ensure that these action plans were implemented and effectively completed in a timely fashion. As an option, Internal Evaluation personnel may participate in the development of corrective action plans. However, organizational responsibility and accountability for the development of these plans must reside with the technical departments cited in the finding or concern. A proper corrective action plan must include the following elements:

- (a) Identification of the finding or concern;
- (b) Analysis of objective evidence to determine the systemic or root cause(s) of the finding or concern;
- (c) Identification of corrective steps that will prevent a recurrence of the finding or concern;
- (d) Implementation schedule, including a time frame for completion of identified corrective steps; and
- (e) Individuals or departments responsible for implementing the corrective steps.

EAC00.2.24 Individuals Responsibilities

The individuals responsible for managing an IEP must facilitate the corrective action process by performing the following:

- (a) Ensuring corrective action plans are developed in response to findings or concerns and verifying that they include the elements outlined above;
- (b) Monitoring implementation/completion of corrective action plans and providing senior management with an independent assessment; and
- (c) Initiating scheduled and/or unannounced follow-up evaluations to ensure the effectiveness of the corrective action plans.

EAC00.2.25 Records

The certificate holder must maintain records documenting IEP performance and results. Records are considered the principle form of evidence. Documented evidence is essential in analyzing and determining the root causes of findings or concerns in order to identify potential areas of noncompliance. It is important to maintain accurate, complete, and reliable records that document the activities and results of an internal evaluation. IEP files must include the following data:

- (a) Scheduled evaluation reports;
- (b) Special evaluation reports, including the trends or other reasons associated with scheduling a special evaluation;
- (c) Follow-up evaluation reports;
- (d) Responses to findings or concerns; and
- (e) Corrective action plans.

EAC00.2.27 Program plan outline

IEP procedures and responsibilities must be documented in a formal program plan. Following are suggestions for the plan's preparation and structure.

(a) Preparing a program plan

- (1) The program plan must describe the duties, responsibilities, procedures, and organization of the IEP.
- (2) Copies of the plan must be distributed to appropriate company personnel to enhance their awareness and familiarity with IEP procedures. In addition, revisions must be made, as necessary, to ensure that the program plan continues to reflect the certificate holder's current internal evaluation procedures and organization.

(b) Structuring a program plan

A sample outline of a typical program plan using the elements in this EAC is provided in the Appendix. It must be viewed as a checklist of items that warrant consideration during development of an IEP.

The number of items addressed and the manner in which they are documented will ultimately depend on the complexity of each operation.

EAC00.2.29 Program acceptance

The certificate holder shall submit their program to the ECAA for review and acceptance. A prepared program will provide the ECAA with an opportunity to review the proposed duties, responsibilities, procedures, and organization of the certificate holder's IEP. Additionally, the ECAA will provide support to any certificate holder requesting assistance with program development and implementation.

EAC00.2.31 Conclusion

Development of internal evaluation programs must ensure that company policies and procedures are responsive to growth/change and that certificate holders continually comply with appropriate safety requirements.

APPENDIX TYPICAL PROGRAM PLAN OUTLINE

EAC00.2.app1.41 Objective and policy

The objective must be a statement that clearly defines the purpose and structure of the certificate holder's Internal Evaluation Program (IEP). Policy statements, following the objective, must indicate that the internal evaluation process is independent, actively involves Senior Management, and is a continual process designed to identify potential problem areas.

EAC00.2.app1.43 Definition of terms

Terms that will be used consistently in the IEP must be defined. For example, a certificate holder must define how results are categorized, i.e., a finding or concern. These categories and other applicable terms must be defined and documented for clear understanding and interpretation by company personnel. Definitions must be similar to those specified in this EAC.

EAC00.2.app1.45 Duties and responsibilities

The certificate holder must specify which individuals are responsible for performing the following tasks:

- (a) Internal evaluation supervision;
- (b) Performance of evaluations, audits, and inspections;
- (c) Identification and documentation of findings or concerns;
- (d) Collection of objective evidence necessary to substantiate findings or concerns;
- (e) Initiating and/or providing solutions to findings or concerns through designated reporting channels;
- (f) Monitoring the development and implementation of corrective action plans;
- (g) Maintaining and updating Internal Evaluation files;
- (h) Verification of solution implementation; and
- (i) Communication and coordination of IEP activities with ECAA personnel on a regular basis.

Personnel performing the above tasks must not be responsible for work accomplishment or management in the areas being evaluated. The supervisor of the Internal Evaluation function must either be Senior Management or their representative with straight-line reporting authority to Senior Management. When full-time dedicated resources and personnel are not practical, procedures must indicate that persons having direct responsibility for the areas to be evaluated are not to be involved in the selection or supervision of the Internal Evaluation team. In addition, identified personnel must be exempt from their other duties and completely dedicated to the IEP while they participate as an evaluator.

EAC00.2.app1.47 Organization chart

An organization chart must be prepared that clearly illustrates the position of the IEP within the certificate holder's management structure. The chart must reflect the program's independence within the corporate structure and straight-line reporting to Senior Management.

EAC00.2.app1.49 Reporting procedures

Reporting procedures must include requirements for Senior Management's review of internal evaluation information. They must be routinely apprised of schedules, plans, results, and follow-up corrective actions. Additionally, this section of the plan must specify the frequency, format, and structure for reporting information to Senior Management and schedules to the ECAA.

EAC00.2.app1.51 Scope

A certificate holder must specify all areas within the scope of the IEP review. The ECAA believes that the most effective IEP will encompass a complete review of the certificate holder's entire operation. However, a certificate holder has the option of limiting an internal evaluation to selected systems or functional areas.

EAC00.2.app1.53 Schedule process

The scheduling process must be comprised of the following elements:

- (a) Scheduling evaluations over a predetermined calendar period;
- (b) Performing special evaluations when trends are identified or priorities are set by Senior Management; and
- (c) Completion of follow-up evaluations that verify the effectiveness of corrective actions.

Procedures and specific individuals responsible for planning, developing, and coordinating the internal evaluation schedule must also be defined.

EAC00.2.app1.55 Records

The IEP must have a defined record-keeping process. Procedures must specify how records are filed and maintained. Standard forms or formats for filing reports also must be specified. IEP records must be comprised of the following:

- (a) Scheduled evaluation reports;
- (b) Special evaluation reports;
- (c) Follow-up evaluation reports;
- (d) Responses to findings or concerns;
- (e) Corrective action plans; and
- (f) Reports concerning completed corrective actions.

EAC00.2.app1.57 Training

The certificate holder must provide evaluators with training in recognized quality auditing and evaluation principles/techniques. This training could be one or a combination of the following:

- (a) In-house courses;
- (b) College courses;
- (c) Home study materials; or
- (d) Industry sponsored seminars and workshops.