



CHAPTER 10

THE NCAA'S SAFETY MANAGEMENT SYSTEM

1.0 PURPOSE

This Chapter provides a description of the NCAA's Safety Management System (SMS) and the processes used by the Authority to identify and manage safety risks. The SMS forms part of Nigeria's State Safety Programme (SSP) as described by ICAO. The Chapter explains the operation of the NCAA's Executive Safety Committee and how that committee informs itself of current and emerging safety risks in the industry and uses that information to direct the risk-based audit function.

2.0 REFERENCES

- 2.1 ICAO Doc 9859 Safety Management Manual;
- 2.2 ICAO Doc 9519 Accident/Incident Reporting Manual;
- 2.3 FAA AC 120-79 Developing and Implementing a Continuing Analysis and Surveillance System;
- 2.4 FAA AC 120-66 Aviation Safety Analysis Programs.

3.0 INTRODUCTION

- 3.1 The Safety Management System will enable the NCAA to adapt to changes and continuously improve safety in the air transport system. This is done through an integrated, data-driven approach based on risk management in a systems safety framework. The SMS will allow the NCAA to address the highest risk concerns through a system of risk controls integrated across all NCAA functions, with an efficient application of resources. This approach will permit the leveraging of resources through risk management and will focus on safety oversight of systems and processes. Direct observation and surveillance will still be required, but they will be used differently than in the past. Rather than serving as a quality control function, the results of surveillance will be used as objective evidence with which to evaluate the effectiveness of service providers' safety management capability and performance.
- 3.2 The responsibility for the safety of aviation products and services rests with the aviation product/service provider. The NCAA responsibility is to set forth the safety regulations and system requirements for aviation product/service providers to follow. The NCAA responsibilities include defining the requirements for those systems, applying risk-based lifecycle safety oversight, verifying that the safety systems of the aviation product/service provider meet design requirements and that their processes, products and services continue to do so during the operational phases of their lifecycle. Those oversight responsibilities are accomplished at multiple levels.



- 3.3** Regulations will serve as risk controls, if correctly applied in the context of the unique operational environments of the service providers. Rulemaking processes therefore, should apply the concepts of safety risk management. They should identify hazards in the air transport system and provide boundaries on acceptability of design and performance of products and services. Compliance with the regulations would thus move beyond viewing them only as administrative requirements and into an environment where compliance entails effective control of clearly identified hazards. This would enhance the value of regulations as effective instruments of safety management. Regulations and subsequent oversight activities must be part of a systematic strategy of risk control.
- 3.4** The NCAA will allocate resources and conduct oversight using system safety principles. This approach recognises that the statutory responsibility for safety rests with the aviation product/service provider. The NCAA establishes safety and SMS requirements and, using a variety of means such as audits, evaluations and inspections, verifies the aviation product/service provider's safety systems are compliant with requirements and validate the implementation and effectiveness of those safety systems. In this way, NCAA personnel will be used more efficiently, and there will be a higher level of confidence that an aviation product/service provider will meet safety standards for each operation, whether the NCAA is present or not.
- 3.5** The SMS will enable the NCAA to respond to changing industry business models and growth, the air transport systems increasing complexity, and the current and future challenging budget environment by allocating resources efficiently and effectively on data-driven risk analysis and assessment. The NCAA will thus be able to provide the air transport system and the public at large with:
- Enhanced safety,
 - Better, innovative, more consistent and more responsive service,
 - Higher value, and
 - Regional leadership in establishing aviation safety standards.

4.0 SAFETY AND QUALITY.

- 4.1** Safety, like quality is an emergent property of a system that is sometimes difficult to define, unlike more tangible characteristics like profit, costs, or products produced. It cannot be touched or seen and therefore, cannot be directly managed. Quality is also a less tangible property. Rather than being an absolute, objective measure of "goodness," quality is relative to the requirements that are set for it. What may be "excellent quality" in one set of circumstances may be completely unacceptable in another. Therefore, if "high quality" is defined in terms of process or product characteristics that enhance safety, then safety and quality are congruent. However, if quality is defined in terms that do not promote safety (or, in some cases, may even be counter to safety) then they may be in conflict. The relationship between quality and safety therefore, is very dependent on how the system's requirements are set.



- 4.2** Safety management and quality management are complimentary and must work together to achieve the overall safety goals of the NCAA. Aviation can never be entirely risk free. We must reduce risk to at least the acceptable level; as a secondary goal, we should reduce risk to as low as reasonably practicable (ALARP). The primary requirement for an SMS is to establish a management system that has processes and procedures in place so operational safety is maintained at an acceptable level (safety management) and specified operational results are achieved (quality management).

5.0 EVOLVING STANDARDS AND CONCEPT FOR SAFETY MANAGEMENT.

- 5.1** Standards and concepts related to aviation safety management and safety management systems are evolving at an international level. The standards and principles that evolve within the NCAA will be aligned with those international standards. Basic principles of the plan include the following:

- (1) Ensuring the future air transport system will continue to be the world's safest form of transport requires a new safety approach.
- (2) Regulatory authorities must change their role from focusing on testing, inspecting and certifying individual elements to focusing on approvals and audits of the safety management of aviation product/service providers.
- (3) Safety needs to be embedded on all products, policies or technologies. A comprehensive safety management doctrine will create high-level standards and procedures for the safety programs of aviation product/service providers and those that provide associated safety oversight.
- (4) Standards cannot be put in place without a data analysis capability to identify and resolve accident precursors.

6.0 ICAO

- 6.1** ICAO has proposed a standard for member States that includes the requirement for a State to have a safety program to achieve an acceptable level of safety in the operation of aircraft. The acceptable level of safety is to be defined by each State.
- 6.2** One element of the ICAO program as it relates to Annexes 1, 6, 8, 11, 13 and 14, is for a State to require product/service providers to implement an SMS. Such an SMS is to be approved by the State.
- 6.3** This document proposes the internal SMS standard for the NCAA. The SMS governs NCAA internal procedures for regulation and safety oversight from the design of those procedures through to their execution. The SMS will be based on a risk management approach that ensures an acceptable level of safety throughout the air transport system. The SMS will also strive for effective safety oversight consistent with NCAA authority, resources and other practical constraints. The NCAA will develop safety management standards and guidance for the



producers of aviation products/services. Like internal SMS standards, the external SMS standards and guidance will be flexible enough to accommodate effective safety management systems that are being developed or are already in place.

7.0 EXECUTIVE SAFETY COMMITTEE

7.1 The Executive Safety Committee is established to assist the Director General to discharge his responsibilities by monitoring and advising on:

- (1) Operational safety;
- (2) Occupational safety and health and
- (3) Organisational preparedness to counter safety threats.

7.2 To assist the Director General, the Committee will:

- (1) Monitor the effectiveness of the NCAA's Safety Management System that is in place to minimise the possibility of the NCAA acting unsafely or contrary to safety regulatory requirements.
- (2) Assess the safety risks arising from the NCAA's operations and review the adequacy of management's approach to the management of operational safety, occupational safety and health risks and the safety of the aviation industry.
- (3) Assess the safety risks present in the aviation industry and through the use of objective safety data and analysis, direct the NCAA's risk-based audit activities.
- (4) Consider the completeness and appropriateness of safety reporting to the Board, and all external reporting on safety matters.
- (5) Review serious safety incidents and monitor the progress to completeness of any actions required as a result of such incidents.

Ensure that safety priorities are integrated into the NCAA's strategy.

The membership of the Committee shall comprise:

- ❖ The Director General (Chair),
 - The Director of Operations and Training,
 - The Director of Airworthiness,
 - The Director of Licencing,
 - The Director of Aerodromes and Airspace,
 - The Director of Air Transport Regulation,
 - The Director of Finance and Administration,
 - The Company Secretary/Legal Advisor,
 - The Head of Aeromedical Standards.



The Committee shall be assisted by:

- The Safety Management System Co-ordinator,
- The Head of the Safety Deficiencies and Incident Analysis Unit,
- Committee Secretary.

7.3 The Committee will meet monthly, or more frequently as determined by the Director General.

The standing agenda of the Committee shall be:

- Minutes of previous meeting,
- Actions arising,
- Directors Reports,
- Report from HAMS,
- Report from CS/LA,
- Report from SMS Co-ordinator,
- Report from SDIAU,
- Director General's report,
- Discussion and identification of safety priorities,
- Other business,
- Close.

7.4 Following the Executive Safety Committee meeting, the Chairman of the Flight Standards Group (FSG) will be responsible for briefing the FSG on relevant matters discussed by the Committee with particular emphasis being placed on those items deemed to have heightened levels of risk to safety.

The FSG will develop strategies to address the risk areas. Some of the possible actions by the FSG include:

- Increasing the surveillance carried out on a particular operator, group of operators, type of aircraft, type of activity, location etc,
- Raising awareness of the risk within the industry or industry sector by the use of 'All Operators Letters', letters to pilots, engineers, dispatchers etc,
- Conducting workshops or information seminars addressing the issue. In this case the assistance of ICAO, IATA, the manufacturers and other CAAs may be sought,
- Publication of safety articles in the NCAA magazine and on the website.

8.0 SAFETY TREND INDICATOR

8.1 The Safety Trend Indicator (STI) is a means by which the NCAA can collate objective data based on its safety inspectors' observations of an operators risk indicators.



- 8.2** The STI ensures all safety inspectors use a common taxonomy when assessing operators. It is a means by which otherwise subjective opinions can be developed into objective information. Analysis of STI data is one means by which the NCAA can assess the areas of greatest risk within the aviation industry and can allocate surveillance resources to those organisations or groups of organisations presenting the greatest threat to safety.
- 8.3** There are two types of forms, one each for Air Operators (Appendix A) and Aircraft Maintenance Organisations (Appendix B). Please make sure you use the correct form for the organization being rated.
- 8.4** The form should be filled in by the inspector or inspectors with the most detailed knowledge of the organisation.
- 8.5** Only one form is to be filled in for each organisation. If more than one inspector contributed to the information provided, select one person to be the contact name provided on the form.
- 8.6** The form is divided into two sections, the first asking for general information about the type of organisation being rated, and the second containing a number of safety indicators. For both sections all you need to do is put a tick in the appropriate box. It may be necessary to refer to files, make some phone calls, or do other reference work. Nevertheless, please note that each safety indicator has a 'don't know' option. Please feel free to use the 'don't know' option as often as necessary. It is likely that most inspectors will not be able to provide all the information on all the indicators for all organisations, particularly if the organisation has not been audited recently.
- 8.7** The one exception to this is if you feel that a Safety Indicator question (which calls for a 'yes', 'no', or 'don't know' response) is not applicable to the organisation being rated. In that case, answer with the 'low risk' (ie the non-shaded) response (rather than leaving blank or answering 'don't know').
- 8.8** Please note, that several of the questions are dependent on the judgement of the individual inspectors and different people could justifiably come to different conclusions about the same organisation.
- 8.9** If you have any questions about how to fill in the form please call the SMS Co-ordinator.
- 8.10** When the forms are completed they should be returned to the SMS Co-ordinator
- 8.11 SAFETY MANAGEMENT SYSTEM CO-ORDINATOR**
- 8.11.1 The NCAA will appoint a Safety Management System Co-ordinator to provide guidance and direction for the planning, implementation and operation of the organization's safety management system.
- 8.11.2 The position requires the ability to cope with changing circumstances and situations with little supervision. The safety manager acts independently of other managers within the organization.



- 8.11.3 The safety manager is responsible for providing information and advice to senior management and to the Director General on matters relating to safe operations. Tact, diplomacy and a high degree of integrity are prerequisites.

8.12 THE SMS CO-ORDINATOR WILL HAVE THE FOLLOWING RESPONSIBILITIES:

- Provide a point of contact within NCAA for accepting reports related to safety concerns affecting the Authority's activities,
- Co-ordinate SMS training for NCAA staff,
- Promote an organizational culture that fosters safety practices,
- Report to the Executive Safety Committee, or where appropriate to the Director General about safety concerns gathered through the NCAA's internal safety reporting,
- Co-ordinate the Safety Trend Indicator process,
- Provide feedback to reports about safety concerns and actions taken,
- Monitor the performance of the SMS to seek ways of improving the system.

8.13 MANAGEMENT COMMITMENT AND INFORMED INVOLVEMENT COMMITMENT

- 8.13.1 NCAA management demonstrates informed involvement in the SMS process by being personally involved in the improvement efforts arising from formal senior management reviews and by participating as appropriate in:

- Being role models for the SMS programme in terms of personal behaviour;
- Promoting the inclusion of safety topics in the agenda of meetings;
- Applying a 'just and non-punitive' culture through statements and reactions to occurrences;
- Empowering experienced and competent personnel for SMS development and involving them in the key decision making process;
- Encouraging a pro-active safety reporting regime;
- Participating in the review of all incidents and accidents;
- Conducting periodic surveys to indicate the commitment of personnel throughout the organisation to SMS.

8.14 INFORMED INVOLVEMENT

- 8.14.1 Management demonstrates informed involvement in the SMS process by being personally involved in the improvement efforts arising from formal senior management reviews and by participating as appropriate in:

- NCAA SMS policy formulation;
- Risk Management and Safety Case development and content;
- high priority areas for improvement;
- the status of associated remedial actions/improvement initiatives; and



- SMS programme performance measurements.

8.15 NCAA CULTURE (SUPPORTING A POSITIVE SAFETY CULTURE)

8.15.1 NCAA believes that a 'positive' safety culture has

- communication founded on mutual trust;
- common patterns of behaviour that contribute to safety, based on shared beliefs in the importance of the SMS programme, and how it is to be achieved;
- a common language for SMS;
- understanding of individual responsibilities regarding SMS; and
- shared confidence in the effectiveness of the SMS controls.

8.15.2 We believe that the SMS elements essential for establishing a positive safety culture are

- senior management create the structures and climate for the open reporting of hazards and the 'just' investigation of occurrences;
- managers create a supportive SMS culture through their own personal actions and statements; and
- senior management commits resources; responds to feedback; asks for ideas, and rewards positive behaviours.

8.15.3 NCAA believes that the primary requirements for a satisfactory SMS culture are:

- constant vigilance
- an Informed Culture
- a Reporting Culture
- a Just Culture
- a Flexible Culture
- a Learning Culture

8.15.4 THESE REQUIREMENTS ARE DETAILED BELOW.

8.15.4.1 CONSTANT VIGILANCE

8.15.14.1.1 Effective SMS is a dynamic non-event and we recognise that it is easy to become complacent. This may lead to the following 'illusions of safe operations':

- An organisation with a good safety record will continue to be safe;
- Instructions and procedures for aviation safety are well read, understood, remembered and observed;
- Punishment can minimise the recurrence of an accident;
- Luck plays a big role in an SMS programme;
- Trained, experienced employees are immune to errors;



- It suffices that top management appeal from time to time to employees on the importance of SMS to safe operations.

At NCAA we are, therefore, never quite comfortable with our safety status quo, however good it may be.

8.15.4.2 INFORMED CULTURE

8.15.4.2.1 In an informed culture, insight breeds a positive safety culture. Thus if each individual at NCAA understands what the other person needs to accomplish their job safely, then we can operate in mutual support. The NCAA 'SMS information system' which collects analyses and disseminates information from hazard identification, occurrences (incidents, accidents), audits, meetings, and external sources is a vital part of our informed culture. As part of our positive safety culture, we perform continual 'reality checks' on our organisation and disseminate the findings.

8.15.4.3 REPORTING CULTURE

8.15.4.3.1 A reporting culture is based on trust. At NCAA we believe that the accepted requirements for a reporting culture are as follows:

- Indemnity against disciplinary action except in cases of wilful violations or gross negligence (striking a balance between 'blame' and 'no blame');
- Confidentiality and de-identification;
- Competent analysis of incidents / accidents by independent individuals (people who report outside the chain of command of those involved);
- Rapid, useful, accessible feedback to the reporters; and
- Ease of making a report.

8.15.4.4 A 'JUST' CULTURE

8.15.4.4.1 A 'Just' culture is based on our beliefs that:

- SMS is a Corporate value;
- Our SMS programme considers our own particular "way of doing business" as well as our unique possibilities and constraints;
- Occurrences are caused by systems failures;
- The failures observed at the "front end" of our operations are considered symptoms of deficiencies in the safe operations;
- Human error is viewed as a symptom; and
- Error is accepted as a normal, unavoidable, but manageable component of human performance. Human error is a clue, which indicates where our SMS investigation process may begin, rather than end.



8.15.4.5 A FLEXIBLE CULTURE

8.15.4.5.1 A flexible culture allows the following paradoxes. We:

- Adhere to standard operating procedures (SOP's) as detailed in our Technical Guidance Material, but we seek better ways in a controlled, responsible manner;
- Actively avoid errors but we do not stifle initiative; and
- Encourage mutual monitoring, but it must be accomplished without loss of confidence or trust.

8.15.4.6 A LEARNING CULTURE

8.15.4.6.1 NCAA supports a learning culture that has:

- The ability to 'reframe' (we try not to display a rigid, fixed 'mindset');
- The will to implement reforms;
- An 'Internal locus of control' (we accepts responsibility for own actions and results); and
- The appropriate processes, procedures and methods for becoming a 'learning organisation'.

NCAA's safety culture is assessed through a variety of indicators, including a periodic Safety Culture Survey.

9.0 HAZARD AND EFFECTS MANAGEMENT PROCESS (HEMP)

9.1 General

9.1.1 The Hazard and Effects Management Process (HEMP) is the SMS process used to analyse the hazards affecting operations at NCAA

The primary purpose is to identify hazards and either eliminate them completely or control the risks associated with the hazard. Aviation operations are high risk and in reality cannot be totally risk free.

The core of NCAA's risk management program is the proactive identification, analysis and management of the risk factors influencing all activities associated with the Authority's safety regulation and oversight activities. This includes such things as developing regulations and guidance materials, issuing certificates and approvals, conducting surveillance and follow-up actions.

9.1.2 The objective is 'effective risk management', with focus on 'effective operations with the minimum practicable levels of risk'. This calls for a rigorous system of hazard management and effective systems for monitoring safety performance. The process of identifying hazards to safety and managing the potential of the associated risks is therefore fundamental. The essence of modern safety management is the elimination or control of potential hazards in order to reduce the safety risk to As Low As Reasonably Practicable - ALARP.

NCAA's work is complex and involves several safety critical activities. Management alone cannot achieve the identification and control of risk. Effective risk management is collaboration between Management and NCAA personnel. In sum, all stakeholders have a general responsibility for monitoring safety.

9.1.3 Formal systems are required to provide the necessary levels of safety assurance. An effective safety monitoring system should;



- Measure and report safety performance;
- Thoroughly investigate and follow-up accidents and incidents, and disseminate feedback on the lessons learned;
- Formally assess the safety implications of change (e.g. of procedures, equipment or organisation); and
- Audit the effectiveness of the safety organisation and the various safety systems, including audits of the robustness of the SMS itself.

9.2 MANAGEMENT OF RISK

9.2.1 Broadly speaking, the risk in all of the safety-critical activities at NCAA shall be managed as follows:

- Current activities shall be risk assessed and thereafter shall be monitored continually for hazards that might arise due to the dynamic nature of operations. The process of identifying and controlling risk in current activities shall be formally driven and documented.
- Prior to the start up of a new task, all reasonable steps shall be taken to predict the meaningful risk factors in the activity. This includes analysing these factors and then implementing controls to eliminate and/or manage the risks. This process will in most instances be formally managed and documented primarily by means of a Safety Case.
- Should a serious risk be identified in current activities then that risk could become subject to an individual 'safety case' i.e. a detailed analysis and the implementation of dedicated controls.



NAME OF OPERATOR

Appendix A

CONFIDENTIAL - NCAA AOC SAFETY

**Is this being filled out after a site visit to this organisation?
(regardless of whether the visit was part of a scheduled
NCAA audit).**

Yes No

**When was the last scheduled NCAA audit of this
organisation?**

Just completed one prior Less than 3 months ago
to filling in this form
3 – 6 months ago 6 – 12 months ago
12 – 18 months ago More than
18 months ago

Size of largest aircraft operated

Under 10 seats 10 to under 49 seats
50 seats to 100 seats 101 to 200 seats
More than 200 seats

How many aircraft are regularly operated?

1 aircraft 2-3 aircraft
4-5 aircraft 6-10 aircraft
11-20 aircraft More than 20 aircraft

**Primary type of operations undertaken (regardless of AOC
permission held)**

Jet passenger transport Turboprop passenger
transport
Cargo Charter
Helicopter Flying Training
Other

Age of oldest aircraft operated

Under 10 years old 11-20 years old
21-30 years old Over 30 years old

**Overall judgment of the performance of this organisation
relative to other organisations carrying out similar work (it
is assumed that all organisations are operating at or above
the minimum standard)**

Much better Somewhat better
About average Somewhat worse
Much worse Don't know/not sure

**Overall judgment of the performance of this organisation
compared to 12 months ago**

Much better Somewhat better
About average Somewhat worse
Much worse Don't know/not sure



TREND INDICATOR – FOR NCAA INTERNAL USES ONLY

QUESTIONS AND GUIDANCE (Higher Risk Potential Response Given by Shaded Cells)

If you feel that you cannot make a yes/no determination, please use the 'don't know' option.

	Yes	no	don't know
1. Is this a new start-up organisation, i.e. has it been operating less than 12 months? <i>(a name change should not be counted as restarting the clock if all or most other factors remain the same).</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the organisation been subject to takeover or change of ownership within the last 12 month?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Have any of the key personnel had less than 12 months experience with this particular Organisation? <i>(any person able to influence policy practice, procedure or culture is a key person e.g CP, Head of Check and Training, Fleet Manager, etc)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Has there been a significant change to organisational structure or areas of responsibility in the preceding 12 months?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are there any indications that the organisation is suffering from financial stress? <i>(actual or anecdotal evidence is an acceptable indication)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Has the organisation introduced new aircraft or new routes or made significant changes to procedures or processes within the last 12 months?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Has the operation been subject to significant expansion or contraction within the last 12 months? <i>(e.g. staff numbers, capacity, routes, activity level, etc)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Have any audit findings been issued to the organisation during the preceding 12 months?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Has the organisation failed to satisfactorily acquit audit findings by the acquittal date in the last 12 months? <i>(NCAA may need to prompt for acquittal regularly, this may reflect poor administration; a Poor attitude to safety etc) – if no findings issued in last 12 months refer to last time findings issued.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have any of the key personnel been counselled over the last 12 months?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Has the organisation been subject to NCAA initiated certificate action within the past 12 months? <i>(i.e. short term reissues/suspension/show cause/directions/limitation, etc)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Within the last 12 months has the organisation been the subject of any adverse safety comment warranting further investigation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Within the last 12 months has the organisation been involved in a reported accident?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Within the last 12 months has the organisation been involved in a reported accident for which the organisation was probably at least partially responsible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



- | | | | |
|--|-------------------------------------|-------------------------------------|--------------------------|
| 15. Does the organisation operate from more than one location without adequate procedures to ensure proper communication between sites? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Taken as a whole, does the organisation operate under more difficult conditions than other operators? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. Does the organisation apply for an abnormally high number of MEL exemptions? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. Is the morale within the organisation low?
<i>(e.g. judged from talking to staff, presence of IR problems, confidential reports, abnormal staff turnover, etc)</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 19. Are the aircraft regularly utilized to the limit of their performance?
<i>(e.g. maximum range, maximum landing weight, etc)</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. Are most operational staff throughout the organisation putting in abnormally high levels of overtime or otherwise showing signs of fatigue/overwork? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 21. Does the Chief Pilot appear to have full confidence of other subordinates? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 22. Are the organisational policy processes and procedure well described in their documentation?
<i>(Indicated by an appropriately comprehensive and detail operational document set which defines procedures, responsibilities and processes for this particular organisation)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 23. Are the organisation's documented processes generally applied in practice?
<i>(e.g. staff are aware of the documented procedures and regularly refer to them. The documented procedures are updated and reflect what actually happens)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 24. Do senior management take an active and constructive role in decision making?
<i>(i.e. do not bypass middle management, take an active role in setting policy and strategies)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 25. Is safety identifiable as a major organisational priority?
<i>(i.e. does not take second place to short term profit seeking, staff are not complacent about safety/feel that an aircraft accident could happen at their aerodrome)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 26. Does the organisation have a mature, well functioning safety system?
<i>(i.e. presence of safety reporting, recording and feedback systems, safety management adequately funded. Management committed to improving safety.)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 27. Does the organisation have a strong commitment to ongoing staff training?
<i>(e.g. staff training are organized in company time, are compulsory and attendance is recorded)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 28. Does the organisation have procedures to address the root causes of problem rather than apply superficial fixes?
<i>(e.g. a formal functioning corrective action system –underlying reason for the problem are addressed in order to stop the problem from recurring)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 29. Are procedures in place to continually review the ongoing appropriateness of current practices?
<i>(i.e. is there an active commitment to exploring new or improved methods)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |



30. Is there evidence of an adequate system to ensure common policy is applied and followed by the separate operational elements?
(e.g. regular standardization meeting held under the supervision of a senior manager – for organisations with very few staff answer ‘Yes’)

SCORE (sum of mark in SHADED cells)

Number of marks in Don't know cells

Comments (optional) _____



Appendix B

NAME OF OPERATOR

NCAA AMO SAFETY TREND INDICATOR

Is this being filled out after a site visit to this organisation? (regardless of whether the visit was part of a scheduled NCAA audit).

Yes No

When was the last scheduled NCAA audit of this organisation?

Just completed one prior to filling in this form Less than 3 months ago 3 - 6 months ago 6 - 12 months ago 12 - 18 months ago More than 18 months ago

What type of work does this organisation engage in?

Maintenance of aircraft only Maintenance of aircraft and components Maintenance of components only Other

Primary type of aircraft serviced

Fixed wing Rotary wing Other Not applicable (i.e. no aircraft maintained)

Most common seating capacity of aircraft serviced (if cargo aircraft, answer as if aircraft configured for passengers)

Under 10 seats 10 to under 30 seats 30 seats to 100 seats 101 to 200 seats More than 200 seats No applicable (i.e. no aircraft maintained)

Average number of operational staff at principal location

5 or under 6 - 10 11 - 20 21 - 50 More than 51

Average percent of operational staff at principal location

5 or under 6 - 10 11 - 20 21 - 50 More than 51

Average percent of operational staff which are temporary

under 10% 10 - 29% 30 - 49% 50% or more

Overall judgment of the performance of this organisation relative to other organisation carrying out similar work (it is assumed that all organisations are operating at or above the minimum standard)

much better somewhat better about average somewhat worse much worse don't know/not sure

Overall judgment of the performance of this organisation compared to 12 months ago

much better somewhat better



about average somewhat worse
 much worse don't know/not sure

QUESTIONS AND GUIDANCE (Higher Risk Potential Response Given by Shaded Cells)

If you feel that you cannot make a yes/no determination, please use the 'don't know' option.

	Yes	no	don't know
1. Is this a new start-up organisation, i.e. has it been operating less than 12 months? <i>(a name change should not be counted as restarting the clock if all or most other factors remain the same).</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the organisation introduced new equipment, or procedures, or processes within the last 12 months? <i>(i.e. significant changes or major departure from current scope of activities etc)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Has the organisation been subject to takeover or change of ownership within the last 12 month?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Have any of the key personnel had less than 12 months experience with this particular Organisation? <i>(any person able to influence policy practice, procedure or culture is a key person e.g. Chief Engineer, Engineering Manager, QA Manager, Maintenance Co-ordinator)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Has there been a significant change to organisational structure or areas of responsibility in the preceding 12 months?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Are there any indication that the organisation is suffering financial stress?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Has the operation been subject to significant expansion or contraction within the last 12 months? <i>(e.g. staff numbers, number of aircraft serviced, etc)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Have any audit findings been issued to the organisation during the preceding 12 months?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Has the organisation failed to satisfactorily acquit audit findings by the acquittal date in the last 12 months? <i>(NCAA may need to prompt for acquittal regularly, this may reflect poor administration; a Poor attitude to safety etc) – if no audit findings issued in last 12 months refer to last time audit findings issued.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have any of the key personnel been counselled over the last 12 months?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Has the organisation been subject to NCAA initiated certificate action within the past 12 months? <i>(i.e. short term reissues/suspension/show cause/directions/limitation, etc)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Within the last 12 months has the organisation been the subject of any adverse safety comment warranting further investigation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Within the last 12 months has unsatisfactory work by this organisation been involved/ implicated in any reported accident or incident?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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|--|-------------------------------------|-------------------------------------|--------------------------|
| 14. Does the organisation operate from more than one location without adequate procedures to ensure proper communication between sites? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. Does the hangar/workshop give the appearance of being unusually untidy or disorganised relative to other such organisations? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Does this organisation apply for an abnormally high number of MEL exemptions?
<i>(If the organisation does not maintain aircraft answer 'no')</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. Is the morale within the organisation low?
<i>(e.g. can judge from discussions with staff, presence of IR problems, reports, abnormal staff turnover etc)</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. Are most operational staff throughout the organisation under abnormal pressure to complete jobs quickly?
<i>(e.g. because there are too few staff or as a cost saving measure)</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 19. Are most operational staff throughout the organisation putting in abnormally high levels of overtime or otherwise showing signs of fatigue/overwork? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. Are there sufficient numbers of Licensed AMEs to adequately supervise the AMEs? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 21. Are the organisational policy processes and procedure well described in their documentation?
<i>(Indicated by an appropriately comprehensive and detail operational document set which defines procedures, responsibilities and processes for this particular organisation)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 22. Are the organisation's documented processes generally applied in practices?
<i>(e.g. staff are aware of the documented procedures and regularly refer to them. The documented procedures are updated and reflect what actually happens)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 23. Do senior management take an active and constructive role in decision making?
<i>(i.e. do not bypass middle management, take an active role in setting policy and strategies)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 24. Is the safety of the aircraft identifiable as a major organizational priority?
<i>(i.e. does not take second place to short term profit seeking, staff are not complacent about safety/feel that an aircraft accident could result from their work)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 25. Does the organisation have a mature, well functioning safety system?
<i>(i.e. presence of safety reporting, recording and feedback systems, safety management adequately funded. Management committed to improving safety.)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 26. Does the organisation have a strong commitment to ongoing staff training?
<i>(e.g. staff training are organised in company time, are compulsory and attendance is recorded)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 27. Does the organisation have procedures to address the root causes of problem rather than apply superficial fixes?
<i>(e.g. a formal functioning corrective action system –underlying reason for the problem are addressed in order to stop the problem from recurring)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 28. Are procedures in place to continually review the ongoing appropriateness of current practices?
<i>(i.e. is there an active commitment to exploring new or improved methods)</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |



29. Is there evidence of an adequate system to ensure common policy is applied and followed by the separate operational elements?
(e.g. regular standardization meeting held under the supervision of a senior manager – for organisations with very few staff answer ‘Yes’)

SCORE (sum of mark in SHADED cells)

Number of marks in Don't know cells

Comments (optional) _____
