



Transport
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TP 13751E

(09/2005)

**AIRCRAFT MAINTENANCE & MANUFACTURING
INSPECTION AND AUDIT (CHECKLISTS) MANUAL**

SECOND EDITION

Canada

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FOREWORD

This manual contains the policies and procedures that are specific to the conduct of inspections and audits within the Aircraft Maintenance & Manufacturing Branch.

The material in this manual supplements the policy and procedures provided in the Inspection and Audit Manual (TP 8606).

Inspections and audits are key components in the Aircraft Maintenance & Manufacturing regulatory oversight program. To ensure consistency and fairness in carrying out tasks as AM&M Inspectors, it is imperative that the policies and procedures specified herein be followed.

D.B. Sherritt

Director

Aircraft Maintenance & Manufacturing

RECORD OF AMENDMENTS

2nd Edition - September 2005 *

Amendment No.	Date			Pages Affected	Date Entered			Initials

* Replaces 1st Edition dated March 2001

CHAPTER 1 PROGRAM DESCRIPTION AND APPLICABILITY

1.1 PURPOSE

Aircraft Maintenance & Manufacturing (AM&M) inspection and audit activities confirm for TCCA that a Canadian aviation document holder is conducting their business in compliance with regulatory requirements.

A company receives its approval on the basis that the program, submitted for TCCA approval, meets regulatory requirements. For the program to receive TCCA approval, company control manuals (i.e., Maintenance Policy Manual, Maintenance Control Manual, Quality Procedures Manual, etc.) must clearly explain how the organization intends to meet the requirements of the standards and regulations under which the company will be operating. The manuals are reviewed to ensure that the means of achieving compliance with regulatory requirements is referenced and documented by process.

Once approved, the company control manuals form important standards to which the organization will be evaluated. If for any reason procedures or processes specified in a manual are inadequate or are not being complied with by company personnel, such deficiencies must be brought to the attention of the company for rectification. Moreover, non-compliance with other regulatory requirements must also be brought to the attention of the company. Where a non-conformance is identified during an inspection or audit, a finding will be assigned citing examples of the deficiencies. Corrective action and follow-up will be conducted in accordance with the process specified in the Inspection and Audit Manual (IAM).

Checklists, forms and material presented or referred to in this manual are designed to provide inspectors/auditors with guidance information to accurately assess an organization's level of conformance with regulatory requirements. Checklists may be general in nature or refer to more specialized checklists, forms or other guidance material. Inspectors/Auditors may supplement these checklists with information contained in other authoritative publications as required.

1.2 APPLICABILITY

The policies, procedures, checklists, forms and guidance material contained or referred to in this manual apply to the conduct of inspections and audits on the following:

- (a) air operators operating pursuant to Canadian Aviation Regulations, Part VII;
- (b) maintenance organizations pursuant to Canadian Aviation Regulations, Part V;
- (c) flight training units pursuant to Canadian Aviation Regulations, Part IV;
- (d) training organizations pursuant to Canadian Aviation Regulations, Part IV;
- (e) manufacturing organizations pursuant to Canadian Aviation Regulations, Part V;
- (f) private operators operating pursuant to Canadian Aviation Regulations, Part VI.

1.3 REVISIONS TO THIS MANUAL

The AM&M Inspection and Audit (Checklists) Manual will be subject to on-going review and revision. Persons identifying errors or omissions, or those wishing to make recommendations for change, are asked to forward their observations to the Director, Aircraft Maintenance & Manufacturing (AARP).

CHAPTER 2 INSPECTION AND AUDIT POLICY / PROCEDURES

2.1 PURPOSE

This chapter provides more specific policy and additional procedures that pertain to inspection and audit activities. Its purpose is to ensure that inspection and audit activities are conducted in a standardized manner thus providing a level playing field for those organizations for which AM&M inspectors hold oversight (surveillance, inspection and audit) responsibility.

Where applicable, material presented in this manual is intended to supplement that provided in the Inspection and Audit Manual (IAM); where any conflict exists between information provided in this document and that set out in the IAM, the IAM will take precedence.

Persons who identify such conflicting material are requested to bring this to the attention of the Director, Aircraft Maintenance & Manufacturing (AARP).

2.2 AM&M - SPECIALTY / ELEMENT AREAS

2.2.1 GENERAL

Aircraft Maintenance & Manufacturing has six (6) main specialty areas:

- (a) air operator maintenance requirements;
- (b) approved maintenance organizations;
- (c) flight training unit maintenance requirements;
- (d) approved manufacturing organizations;
- (e) approved training organizations;
- (f) private operator maintenance requirements.

Each specialty area is further broken into its systematic elements. Approaching the organization by systematic element permits an organized, more focused approach to the activity, which will aid in the organization's overall assessment.

The category, type and class of inspection or audit will determine which of the element areas that are to be inspected and which checklists and forms are applicable. The "element" area checklists and their use are discussed in more detail in Chapter 4.

2.3 INSPECTIONS

(To be added)

2.4 AUDITS

2.4.1 CLASSIFICATION

The two classes of Audits that apply to AM&M function:

- (a) Combined, large and small;
- (b) Specialty;

2.4.2 COMBINED AUDITS

For an air operator audit to be effective, a complete review of a company's operation and maintenance systems is normally conducted as a combined audit (i.e., jointly by Commercial & Business Aviation and AM&M). A combined audit should be the norm for air operators of any size and complexity, the process should address both operations and maintenance control system requirements. Combined audits may also include approved engineering or training organizations where appropriate.

Where logistical problems exist, combined audits may be conducted in a concurrent manner. Specialty audits conducted concurrently may be an alternative method that provides the same benefit of a combined audit. This approach will permit functional groups to perform their audit activities independently and with the autonomy required to manage their activities efficiently. Not only does this approach provide more flexibility in scheduling, it also may reduce the burden of the company having to deal with a larger Transport Canada team.

Large combined audits include both national and specific regional audits suitable for:

- (a) a national airline (705) air operator;
- (b) a regional airline (705) air operator that has a mixed aircraft fleet with numerous aircraft types and a varied route structure; and
- (c) a commuter (704) or an air taxi (703) air operator that has a diverse (including IFR and NVFR) operation with numerous aircraft types and a varied route structure that includes international points.

Small combined audits include regional audits suitable for:

- (a) an airline (705) air operator that uses one or two aircraft;
- (b) a commuter (704) or an air taxi (703) air operator operating within a region;
- (c) a flight training unit (403) operating within a region; and
- (d) a private air operator (604).

2.4.3 SPECIALTY AUDIT

This is the most common audit, focusing on one type of organization under the Branch's functional area. A specialty audit will encompass most organizational elements appropriate to the scope of approval.

2.5 AUDIT PLANNING

2.5.1 GENERAL

The following should be considered when scheduling an audit:

- the feasibility of the audit dates and time-periods with consideration given to statutory / summer holidays, seasonal industry and departmental busy periods;
- the availability of qualified personnel to manage and conduct the audit;
- the sufficiency of time allotted for pre-audit activities; the physical audit (including time to prepare any audit findings) and preparation of the audit report;
- team member travel requirements to, from and during the audit and the availability of team lodgings;
- the need and availability of administrative support;
- the availability of the audit report review committee where applicable; and
- the resource requirements for the production and distribution of the audit report.

2.5.2 NOTIFICATION – AUDIT MANAGEMENT

To effectively plan and prepare for an audit it is imperative that audit managers and where applicable, team leaders, be provided with sufficient notification to familiarise themselves with the terms of reference. The convening authority is responsible to notify and appoint the audit manager; the audit manager will provide letters notification/appointment to the team leaders. Sample memos of appointment can be found in Appendix 1 and 2. Alternatively, other methods of notification for appointment of audit managers and team leaders may be used at the discretion of the convening authority, ie e-mail. Alternate notification methods must clearly communicate the applicable terms of reference.

2.5.3 NOTIFICATION / OBTAINING - TEAM MEMBERS

Obtaining team members is one of the more challenging tasks faced by an audit manager and where applicable, team leaders. Sufficient lead time or prior planning will aid this task by providing branch and division managers time to identify available personnel resources.

It is important that audit management have input towards identifying skill sets in fulfilling team requirements; it is equally important that branch and/or division managers are involved in the selection process from the out-set. Audit managers and team leaders are directed to contact the responsible manager prior to discussing the proposed audit with individual inspectors. In many cases it is expected that an audit manager or team leader will identify potential team members by name, however it must be recognized that the branch/division manager ultimately approves an individual to participate.

Assistance may be available to help identify potential candidates to enhance team selection by a central audit agency within the Region, or from the National Audit Program. Where regional procedures have been established to assist in the creation of audit teams, it is expected that these procedures will be followed.

Once selected, team members are to be provided with a memorandum of appointment by the audit manager or team leader. A sample appointment memo can be found in Appendix 3. Alternatively, other methods of notification and appointment of team members may be used at the discretion of the convening authority or audit manager/team leader, ie e-mail. Alternate notification methods must clearly communicate the applicable terms of reference.

2.5.4 NOTIFICATION - AUDITEE

IAM section 3.2.1 refers. The auditee notification is accomplished by letter that has been prepared by the audit manager and signed by the convening authority. Audit Managers should ensure that ample notice is provided to the auditee relative to the type of audit. A sample letter can be found in Appendix 4.

2.6 AUDIT PLAN

IAM section 3.2.3 refers. The audit manager will develop the audit plan with assistance provided by the team leader(s) where applicable.

In addition to the information required by the IAM, the audit plan should provide the following specific information on the company:

- (a) aircraft fleet information (types, models, numbers);
- (b) main bases, sub-bases and approved points of operation;
- (c) training facilities and simulators used; and
- (d) employee numbers and their location (base of operation).

Plans will vary considerably based on the category, type and class of audit. A sample plan for a large combined audit is provided in Appendix 5.

A simplified audit plan may be used where the auditee has 15 or fewer employees under the applicable Certificate. A simplified audit plan sample is incorporated into Appendix 5. Use of this simplified process will be at the discretion of the convening authority.

2.7 PRE-AUDIT TEAM MEETING

The pre-audit team meeting is important in that it informs audit team members of the expectations of the team leader and/or the audit manager. This meeting also provides an opportunity for team members to clear up any questions that they may have. A sample agenda is provided in Appendix 6.

2.8 ENTRY MEETING NOTES

The entry meeting is important in that it establishes communications between the auditee's management personnel and the audit team. Sample meeting notes are provided in Appendix 7.

2.9 FINDINGS OF NON-CONFORMANCE

IAM section 3.3.4 refers. Findings of non-conformance become the foundation of the audit report, it is therefore important that findings be completed in accordance with the directions of the IAM. In addition to information in Section 3.3.4.3 of the IAM, the “non-conformance to” section of the audit finding form shall be filled out in the following manner:

- (a) state the source of the regulatory requirement using its acronym (CAR, CAR Std., MCM, MPM, QPM, etc.); and
- (b) identify the alpha-numeric designation of the provision [i.e., 705.127(1)(c)].

A non-conformance using the above examples would be written as “non-conformance to: CAR 705.127(1)(c)”.

2.10 EXIT MEETING NOTES

The exit meeting is conducted to ensure that the auditee’s senior management has been fully apprised on the results of the audit. Except for small owner/operator type companies, all findings identified during the audit should have been fully debriefed with the company personnel prior to the exit meeting. The exit meeting is the opportunity to provide a summary of the audit and outline company responsibilities rising from any findings. Sample exit meeting notes can be found in Appendix 8.

Specialty audits of small companies may include a debriefing of findings. The challenge often encountered with this type of dual purpose meeting is to avoid debates over specific findings.

2.11 AUDIT REPORT

IAM section 3.4.1 refers. An audit report will be prepared for each audit in accordance with the requirements of the IAM. Sample reports can be found in Appendices 9 and 10.

A simplified audit report may be used where the auditee has 15 or fewer employees under the applicable Certificate. A simplified audit report sample is incorporated into Appendix 10. Use of this simplified reporting process will be at the discretion of the convening authority.

2.12 AUDIT REPORT REVIEW COMMITTEE

IAM section 3.5.7 refers. Where requested by the Convening Authority, appropriate AM&M personnel will participate in the Audit Report Review Committee.

2.13 PARALLEL FINDINGS AND OBSERVATIONS

IAM Chapter 5 refers. AM&M personnel will make parallel findings and observations in accordance with the IAM. Finding and observation forms will be forwarded to the convening authority upon completion of the audit.

2.14 CORRECTIVE ACTION TRACKING

IAM section 3.5.4 refers. The National Aviation Company Information System (NACIS) provides a means to track audit findings for follow up purposes and will be used for all Maintenance & Manufacturing audits. Corrective Action Tracking Forms have also been developed. A sample form can be found in Appendix 11.



CHAPTER 3 GUIDANCE MATERIAL - APPENDICES

3.1 PURPOSE

Guidance Material in the form of appendices to this section has been developed to aid Inspectors to plan, conduct, report and conclude the audit process. This material relates to the combined audit process and is easily tailored to other activities such as specialty, special purpose audits or routine inspections.

APPENDIX 1
SAMPLE APPOINTMENT MEMORANDUM - AUDIT MANAGER

Note: see Section 2.5.2 for the use of alternate notification methods.

 Transport Canada	Transports Canada
Memorandum	Note De Service
To À	T. Smith MAH
From De	R. Jonson Autorité de convocation
Subject Objet	Acme Aero Limited Audit – Appointment as Audit Manager
<hr/>	
<p>You have been appointed audit manager for the Acme Aero Limited routine conformance audit which is to be conducted during the period June 5-23, 2000. The scope of the audit will include all activities that could affect the safe operation of the operator, including:</p> <ul style="list-style-type: none">a) maintenance and related AMO and air operator programs;b) flight operations;c) cabin safety;d) the transportation of dangerous goods; ande) aviation occupational safety and health. <p>Your terms of reference are as follows:</p> <ul style="list-style-type: none">a) you will report directly to me until released from your audit duties;b) you will conduct all audit related matters in accordance with policy and procedures specified in the Inspection and Audit Manual and the appropriate functional area control manuals;c) you will immediately contact me with a recommendation for action in the event the team identifies an immediate threat to aviation safety;	
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- d) you are authorized to communicate directly with HQ Directors and Regional Managers to obtain the required personnel resources. This may be sub-delegated to team leaders at your discretion;
- e) a responsibility center number will be authorized for expenses incurred during the audit.

Please prepare for me by May 30, 2000, an audit plan which is to include your proposal for sites / bases to be inspected, travel plans and other applicable planning strategies. Include estimates for travel, accommodation and overtime expenses. I also ask that you to prepare a letter, for my signature, informing Acme Aero Limited of the proposed audit. At the conclusion of the audit a report shall be prepared for my approval and signature; the report is to be forwarded to the company within ten days of the completion of the audit. Copies of all travel and overtime claims (including travel advances) and other audit-related expenses shall be forwarded to {XXX/A}.



Thank you for accepting this additional responsibility; I look forward to working with you on this audit.

R. Jonson

Convening Authority

APPENDIX 2
SAMPLE APPOINTMENT MEMORANDUM - TEAM LEADER

Note: see Section 2.5.2 for the use of alternate notification methods.

 Transport Canada	Transports Canada
Memorandum	Note De Service
To À	F. Lalonde, Maintenance J. Reynolds, Opérations
From De	T. Smith Gestionnaire de la vérification
Subject Objet	Acme Aero Limited Audit – Appointment as Team Leader
<p>You have been appointed team leader for the Acme Aero Limited routine conformance audit, which is to be conducted during the period June 5-23, 2000. The scope of the audit will include all activities that could affect the safe operation of the operator, including:</p> <ul style="list-style-type: none">a) maintenance and related AMO and air operator programs;b) flight operations;c) cabin safety;d) the transportation of dangerous goods; ande) aviation occupational safety and health. <p>Your terms of reference are as follows:</p> <ul style="list-style-type: none">a) you will report directly to me until released from your audit duties;b) all audit related matters will be conducted in accordance with policy and procedures specified in the Inspection and Audit Manual and the appropriate functional area control manuals;c) you will immediately contact me with a recommendation for action in the event an immediate threat to aviation safety is identified; and	
	Page 1 of 2

You are to develop an audit plan proposal for your assigned area by May 26, 2000. This plan should include the composition of the team, proposed travel and overtime expense estimates and a proposed schedule of your activities. Arrangements for accommodations, briefing rooms and administrative support while at Acme Aero Limited will be my responsibility.

An audit manager/team leader meeting will take place at the Minto Hotel (Room 1201) on June 5, 2000 at 19:00 hrs. This will be an initial strategy meeting for co-ordinating our audit plan and required resources. Please have a copy of your audit plan available for this meeting.



Thank you for accepting this additional responsibility, I look forward to this opportunity to work you.

T. Smith

Audit Manager

APPENDIX 3
SAMPLE APPOINTMENT MEMORANDUM - TEAM MEMBER

Note: see Section 2.5.2 for the use of alternate notification methods.

	
Memorandum	Note De Service
To À	F. Lalonde, Maintenance J. Reynolds, Opérations
From De	T. Smith Gestionnaire de la vérification
Subject Objet	Acme Aero Limited Audit – Appointment as Team Member
<p>You have been appointed team member for the Acme Aero Limited routine conformance audit, which is to be conducted during the period June 5-23, 2000. The scope of the audit will include all activities that could affect the safe operation of the operator, including:</p> <ul style="list-style-type: none">a) maintenance and related AMO requirements;b) air operator programs;c) Company aircraft <p>Your terms of reference are as follows:</p> <ul style="list-style-type: none">a) you will report to the audit manager, through me, until released from your audit duties;b) all audit related matters will be conducted in accordance with policy and procedures specified in the Inspection and Audit Manual and the appropriate functional area control manuals; andc) you will immediately contact me, or the audit manager, with a recommendation for action in the event an immediate threat to aviation safety is identified. <p>A pre-audit team meeting is scheduled for June 7 at 19:00 hrs in Room 1201 of the Minto Hotel.</p> <p>Thank you for accepting this additional responsibility as a team member for this audit; I look forward to working with you.</p>	
<p><i>Team Leader</i> MAINTENANCE</p>	
	<i>Page 1 of 1</i>

APPENDIX 4 NOTIFICATION LETTER TO AUDITEE



Toronto, Ontario

M5F 7J9

Registered

PAX 5258-23456-13

May 2, 2000

Mr. I. Stravinski

(add correct title), Acme Aero Limited

Macdonald-Cartier International Airport

Ottawa, Ontario K1P 5L6

Dear Mr. Stravinski:

A routine conformance audit of Acme Aero Limited is scheduled for the period June 12-23, 2000. This audit will include the main facility at Macdonald-Cartier International Airport as well as the two sub-bases at Toronto (Pearson) and Montreal (Dorval) airports.

The objective of this audit is to conduct an analysis of Acme Aero Limited's policies and procedures to ensure that legislative requirements are met and an acceptable level of aviation safety is maintained. Standard audit procedures will be used including interviews with key personnel, aircraft and facility inspections, a review of your company's approved programs and manuals. Prior to the audit, you will receive details of our audit plan, which will include a list of audit team members and their areas of responsibility.

An entry meeting is scheduled with your management personnel at 09:00 hrs. on June 12th and an exit meeting is planned for 11:00 hrs on June 23rd. Both meetings will be held at your facilities in Ottawa if that is convenient. The purpose of the entry meeting is to introduce the audit team to company management, review the audit process and ensure that company personnel are familiar with Transport Canada's audit process and regulatory responsibilities. The exit meeting will summarize the audit results and identify specific post-audit responsibilities where applicable.

Should you require any further information or clarification, please contact the audit manager, Inspector Terry Smith, at (416) 952-0002.

Yours truly,

S. Jonson

Convening Authority

The wordmark for Canada, with a stylized maple leaf above the letter 'a'.

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APPENDIX 5

AUDIT PLAN

Note: Items marked with an asterisk (*) can be included or removed from the audit plan at the discretion of the convening authority, refer to Section 2.6 for applicable criteria.

Objective and Scope

A Regional Routine Conformance audit will be conducted on Acme Aero Limited during the period of June 5-23, 2000.

The scope of the audit will include all activities that could affect the safe operation of the operator, including:

- (a) maintenance and related AMO and air operator programs;
- (b) flight operations;
- (c) cabin safety;
- (d) the transportation of dangerous goods; and
- (e) aviation occupational safety and health.

The audit will cover the period from June 20, 1997, to the present.

Company - General *

Acme Aero Limited is an aviation company formed in 1984. It offers both a scheduled and non-scheduled domestic air service from the main base at Macdonald-Cartier International Airport, with sub-bases in Toronto/Lester B. Pearson International Airport and Montreal International (Dorval). The operator also transports certain dangerous goods by air.

Acme Aero Limited operates one PA31 and two DA-20 aircraft from its main base, one HS-748 from each sub-base, plus one PA31 from the sub-base in Toronto. The HS-748s offer a scheduled service between Toronto and Windsor, Ontario and between Montreal and Val D'Or, Quebec. The PA31s operate on a charter basis and are available for med-evac under a standing offer with the Ministry of Health for the Province of Ontario. The DA20s have been added to the AOC since the previous audit in June 1997 and operate under contract to a major courier company.

Aircraft maintenance is performed in-house at all three bases. There is a full-time staff of eight Aircraft Maintenance Engineers, five apprentices and two technicians. The Aircraft Technical Records are kept at the main base in Ottawa.

The company has experienced steady growth and now employs over one hundred people. More detailed company information is provided in Appendix A.

Methodology *

Standard audit procedures specified in the Inspection and Audit Manual will be used. Specialty guidance materials, including checklists, forms and other guidance documents will be used where recommended in the applicable functional area control manual. The random sampling method will be employed where possible with deviations approved by the appropriate team leader.

Where we determine through our review that everything appears to be in order, we complete the specialty area summary for that area and go on to the next specialty area that we are responsible for.

Where Acme Aero Limited appears not to be performing in accordance with the Aeronautics Act, the Canadian Aviation Regulations (CARs), associated CARs Standards, or an approved company control manual, they are said to be in non-conformance. The following steps will then be followed:

- (a) define the area of possible non-conformance;
- (b) retain any clearly defined evidence;
- (c) prepare CRF (if necessary) and present to Team Leader for vetting and discussion;
- (d) complete the finding form (including 3 examples if possible) and attach any evidence or supporting documentation that is collected;
- (e) complete the specialty area summary for the applicable area; and
- (f) pass all documentation (finding form, CRF, evidence/supporting documentation, specialty area summary) to the appropriate Team Leader.

Communications *

Discussions pertaining to the audit shall take place at a location that assures confidentiality; this is especially true when discussions take place on Acme Aero Limited's premises. Do not discuss the audit with persons other than audit team members and please refer any company questions to the audit manager or team leader through the appropriate company representative. Discussions with TCCA personnel outside of the audit team may occur with the knowledge and approval of the team leader.

Specialist Assistance/Foreign Travel

Specialist assistance and foreign travel is not required for this audit.

Parallel Findings/Observations *

Note: as indicated, this paragraph may be omitted from the audit plan, it does not remove the need to submit parallel findings/observations where necessary.

Detection of a TCCA non-conformance to a regulatory requirement, or a non-regulatory policy, procedure or guideline shall be identified on a parallel finding form. Where a team member identifies the possible need to revise a regulatory requirement or a non-regulatory policy, procedure or guideline, this shall be identified using the parallel observation form. Completed forms are to be submitted to the Audit Manager for review. The audit manager will then forward parallel findings and observations to the Convening Authority upon completion of the audit.

Budget-Proposed

	Maintenance		Ops		Manager		Sub-Total
Travel Expenses	\$ 16,532.36	\$	16,181.79	\$	6,653.66	\$	39,367.82
Overtime	\$ 4,024.06	\$	3,586.04	\$	1,946.94	\$	9,557.04
10% Contingency	2055.64		1976.78		860.06	\$	4,892.49
Sub-Total	\$ 22,612.07	\$	21,744.61	\$	9,460.66		
Total						\$	53,817.34

Details for the proposed budget are in Appendix B to this plan. Team members are responsible to ensure that the appropriate team leader approves deviations from budgeted amounts.

Company Management

Name	Title	Telephone No.
I. Stravinski	President, Acme Aero Limited	(613) 974-2300
J. Anderson	Director, Maintenance	(613) 974-2306
T. Baynes-Armstrong	Quality Assurance Manager	(613) 974-2307
B. Mathers	Director, Flight Operations	(613) 974-2301
N. Schaffer	Chief Pilot (HS748, PA31)	(613) 974-2302
F. Duquette	Chief Pilot (DA20)	(613-974-2402
M. Tellier	Chief, Dispatch	(613) 974-2304
S. Lavallee	Director, Inflight Services	(613) 974-2305
D. McIntyre	Manager, Dangerous Goods	(613) 974-2308
C. Roberts	Safety Officer	(613) 974-2303

Audit Team

Position	Name	Region	Phone	Cell/Pager**
Convening Authority	R. Jonson	Ont	416-952-0001	416-987-6542
Audit Manager	T. Smith	Ont	416-952-0002	416-987-6543
Administration	S. Brown	Ont	416-952-0003	416-987-6544
Team Leader (Ops)	J. Reynolds	Ont	416-952-0004	416-987-1234
Flight Ops	K. McLean	Ont	416-952-0005	416-987-1235
Flight Ops	M. Michaels	Ont	416-952-0006	416-987-1236
Cabin Safety	V. Bruce	Ont	416-952-0007	416-987-1237
Dangerous Goods	P. Gagnon	Ont	416-952-0008	416-987-1238
AOSH	N. White	Ont	416-952-0009	416-987-1239
Team Leader (Maint)	F. Lalonde	Ont	416-952-0010	416-987-2345
Maintenance	D. Jacobson	Ont	416-952-0011	416-987-2346
Maintenance	W. Preston	Ont	416-952-0012	416-987-2347
Maintenance	S. Wallace	Ont	416-952-0013	416-987-2348
Maintenance	J. Black	Ont	416-952-0014	416-987-2349

** *Note:* the addition of cell or pager numbers is recommended for team communications.

Maintenance Requirements Audit Plan

Legend:	FL - F. Lalonde	DJ-D. Jacobson	WP-W. Preston	SW - S. Wallace	JB -J. Black
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		Pre-Audit - June 5-9, 2000				
		05	06	07	08	09
Travel		FL, DJ, SW	WP, JB			
AOC-01	Previous Transport Canada Audit	FL, DJ, SW	WP, JB			
AOC-02	Maintenance Control Manual		All			
AOC-03	Person Responsible for Mtce		SW			
	Aircraft File Review		All	All	All	All
AOC-04	Evaluation Program		FL, DJ	FL, DJ		
AMO-02	Maintenance Policy Manual	FL, DJ, SW	WP, JB			
AMO-03	Person Responsible for Mtce		SW			
AMO-08	Quality System		FL, DJ	FL, DJ		

		Physical Audit - June 12-23, 2000									
		12	13	14	15	16	17/1	19	20	21	22
Administrative		Ongoing									
Entry Meeting		All									
AOC-02	Maintenance Control Manual		FL*	Ongoing							
AOC-03	Person Responsible for Mtce			SW*							
AOC-04	Evaluation Program								DJ		
AOC-05	Technical Publications			DJ Ongoing							
AOC-06	Technical Records	FL,D									
AOC-07	Weight and Balance Control										
AOC-08	Mtce Development Programs	N.A.									
AOC-09	Reliability Monitoring Programs				JB/D	JB/D					
AOC-10	TBA										
AOC-11	Maintenance Planning		WP	WP	WP	WP					
AOC-12	Defect Recording, Rectification Control					DJ					
AOC-13	Airworthiness Directive, SB's			WP							
AOC-14	Extended Range Ops ETOPS	N.A.									
AOC-15	Minimum Equipment List							JB			
AOC-16	Category II-III All Weather Ops	N.A.									
AOC-17	Technical Dispatch Procedures								DJ		
AOC-18	Flight Authorities - Test - Ferry					SW					
AOC-19	Maintenance Arrangements				WP						
AOC-20	Training Program								SW/J		

		Physical Audit - June 12-23, 2000									
		12	13	14	15	16	17/1	19	20	21	22
								B			
AOC-21	Personnel Records						FL				
AOC-22	De-icing Procedures					SW					
AOC-23	Elementary Work										
AOC-24	TBA	Ongoing									
AOC-25	Servicing - Fuel, Lub, Oxygen							DJ/W P			
AOC-26	Control of Parts - Parts Pooling							DJ/W P			
AOC-27	Service Difficulty Reporting								JB		
With Integrated AMO											
AMO-02	Maintenance Policy Manual		DJ*								
AMO-03	Person Responsible for Mtce			SW*							
AMO-04	Facilities - General								DJ		
AMO-05	Technical Publications			DJ Ongoing							
AMO-06	Maintenance Records					DJ					
AMO-07	Maintenance Procedures					DJ					
AMO-08	Quality System	FL,D									
AMO-09	Maintenance Release Authorization				SW						
AMO-10	Qualification & Training Program						SW JB				
AMO-11	Personnel Records					SW	SW JB				
AMO-12	TBD				SW						
AMO-13	Control of Parts/ Aero Supplies							DJ,			
AMO-14	Support Overhaul Shops									WP	
AMO-15	Testing/ Measuring Equipment								SW		
AMO-16	Maintenance Arrangements							WP			
AMO-17	TBD								WP		
AMO-18	TBD								WP		
AMO-19	Service Difficulty Reporting								JB*		
AMO-2X	NDT, Various										

Operations Audit Plan *

		Pre-Audit - June 5-9, 2000				
		05	06	07	08	09
Travel		JR, KM, MM	VB	PG, NW		
FO-1	Previous Transport Canada Audit	JR, KM, MM	VB	PG, NW		
FO-2	Air Operator Certificate and Operations Specifications		KM, MM, VB	PG, NW		
FO-3	Company Manuals			All		
FO-5	Management Personnel and Operations Coordination			All		
FO-6	Company Check Pilot Program			KM, MM		
FO-7	Flight Crew Training Program			KM, MM		
FO-12	Aircraft Documentation				KM, MM	
FO-13	Minimum Equipment List					MM
CS-1	Cabin Safety			VB	VB	VB
CS-2	Flight Attendant Training Program			VB	VB	VB
DG-1	Dangerous Goods				PG	PG
AOSH-1	Aviation Occupational Safety and Health				NW	NW

		Physical Audit - June 12-23, 2000							
		12	13	14	15	16	17-18	19-22	23
FO-2	Air Operator Certificate and Ops Specifications			JR*					
FO-3	Company Manuals							JR*	
FO-4	Publications Library	KM*							
FO-5	Mgmt Personnel and Operations Coordination							JR*	
FO-6	Company Check Pilot Program				MM*				
FO-7	Flight Crew Training Program	KM, MM	KM*, MM						
FO-8	Flight Crew Training Records		KM, MM	KM*, MM					
FO-9	Operational Control System			KM, MM	MM				
FO-10	Flight Documentation							KM*, MM	
FO-11	Aircraft Inspection						KM, MM	KM*	
FO-12	Aircraft Documentation					KM, MM	KM, MM	MM*	
FO-13	Minimum Equipment Lists	MM*							
FO-14	Flight Inspection and Route Check				KM	KM, MM		KM*, MM	
FO-15	Aircraft Performance and Operating Limitations							MM*	
FO-16	Flight Safety Program					JR*			
CS-1	Cabin Safety				VB	VB	VB	VB*	
CS-2	Flight Attendant Training Program	VB	VB*						
CS-3	Flight Attendant Training Records		VB	VB*					
DG-1	Dangerous Goods	PG	PG	PG	PG	PG*			
AOSH-1	Aviation Occupational Safety and Health	NW	NW	NW	NW	NW*			

* denotes the person responsible for the specialty area summary and the day it is due.

Legend: JR - J. Reynolds KM - K. McLean VB - V. Bruce MM - M. Michaels PG - P. Gagnon NW - N. White
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APPENDIX A - DETAILED COMPANY INFORMATION *

Personnel

Acme Aero Limited has a total staff of 110 people. The operational breakdown is as follows:

Pilots	24
Flight Attendants	12
AMEs	8
Apprentice AMEs	5
Technical Assistants	2

Bases (including Maintenance)

Main Base	Macdonald-Cartier International Airport	(CYOW)
Sub-Base	Lester B. Pearson Airport	(CYYZ)
Sub-Base	Montreal Airport - Dorval	(CYUL)

Company Aircraft

HS74	C-GXNP	CYYZ
HS74	C-FRLM	CYUL
PA31	C-FNGT	CYOW
PA31	C-FTVL	CYYZ
DA20	C-GTXR	CYOW
DA20	C-CVND	CYOW

Maintenance Staff

Name	Position	Base	License/Endorsements
J. Anderson	Director, Maintenance	CYOW	M123123 (M1, M2)
T. Baynes-Armstrong	Quality Assurance	CYOW	M234567 (M1, M2)
J. Townsend	AME	CYOW	M345678 (M1)
C. Cochrane	AME	CYYZ	M456677 (M1, M2)
P. Cameron	AME	CYYZ	M567876 (M1, M2)
T. Henry	AME	CYUL	M987654 (M1, M2)
F. Jones	AME	CYOW	M758687 (M1, M2)
B. White	AME	CYOW	M751287 (M1, M2)
B. Boyd	AME Apprentice	CYOW	N/A
M. Pelletier	AME Apprentice	CYYZ	N/A
S. Jones	AME Apprentice	CYYZ	N/A
F. Cormier	AME Apprentice	CYUL	N/A
A. Lafleur	AME Apprentice	CYUL	N/A
L. Pierce	Store Keeper	CYOW	N/A
B. Cohen	Technical Records	CYOW	N/A

Flight Operations Staff

Name	License	Aircraft Type	Base
N. Shaeffer	A123456	HS74 & PA31	CYOW
F. Smith	A654321	HS74	CYYZ
N. Granger	A345612	HS74	CYYZ
B. Charles (Type A CCP)	A456123	HS74	CYYZ
K. Williams	A561234	HS74	CYYZ
D. Beck	A612345	HS74	CYYZ
R. Collins (Type B CCP)	A435612	HS74	CYYZ
C. Roberts	A789012	HS74	CYUL
P. Tanguay	A890123	HS74	CYUL
N. Connaught	A901234	HS74	CYUL
R. Peterson	A908765	HS74	CYUL
J. Altman	A987654	HS74	CYUL
G. Gregory	A776655	PA31	CYOW
B. Beliveau	C123456	PA31	CYOW
W. Copeland	C234561	PA31	CYOW
R. Scott	A665544	PA31	CYYZ
A. Spencer	C223344	PA31	CYYZ
B. Ferguson	C334455	PA31	CYYZ
F. Duquette	A172635	DA20	CYOW
H. Chang (Type A CCP)	A192837	DA20	CYOW
R. Beverly	A828374	DA20	CYOW
P. Dole	A674914	DA20	CYOW
J. Green	A5466277	DA20	CYOW
M. Martin	A338495	DA20	CYOW

APPENDIX B - PROPOSED TRAVEL AND OVERTIME EXPENSES

Travel Expenses-Proposed

Name	Days	Hotel	Composite	Airfare	Car	Misc.	Sub-Total	Totals
T. Smith	18	\$1,620.00	\$ 966.60	\$500.00	\$600.00	\$ 73.73	\$3,760.33	
S. Brown	18	\$1,620.00	\$ 966.60	\$250.00		\$ 56.73	\$2,893.33	
Mgr Total								\$ 6,653.66
Ops								
J. Reynolds	18	\$1,620.00	\$ 966.60	\$500.00	\$500.00	\$ 71.73	\$3,658.33	
K. McLean	16	\$1,440.00	\$ 859.20	\$500.00		\$ 55.98	\$2,855.18	
M. Michaels	16	\$1,440.00	\$ 859.20	\$500.00		\$ 55.98	\$2,855.18	
V. Bruce	15	\$1,350.00	\$ 805.50	\$350.00	\$300.00	\$ 56.11	\$2,861.61	
P. Gagnon	10	\$ 900.00	\$ 537.00	\$500.00		\$ 38.74	\$1,975.74	
N. White	10	\$ 900.00	\$ 537.00	\$500.00		\$ 38.74	\$1,975.74	
Ops Total								\$ 16,181.79
Maint								
F. Lalonde	18	\$1,620.00	\$ 966.60	\$350.00	\$750.00	\$ 73.73	\$3,760.33	
D. Jacobson	17	\$1,530.00	\$ 912.90	\$500.00	\$750.00	\$ 73.86	\$3,766.76	
W. Preston	17	\$1,530.00	\$ 912.90	\$500.00		\$ 58.86	\$3,001.76	
S. Wallace	17	\$1,530.00	\$ 912.90	\$500.00		\$ 58.86	\$3,001.76	
J. Black	17	\$1,530.00	\$ 912.90	\$500.00		\$ 58.86	\$3,001.76	
Maint Total								\$ 16,532.36
Total								\$ 39,367.82

Overtime Proposed

Name	# Hrs. Week 1			# Hrs. Week 2			# Hrs. Week 3			Totals
	x 1.5	x 1.75	x 2	x 1.5	x 1.75	x 2	x 1.5	x 1.75	x 2	
	Management									
T. Smith	4		2	6			2		6	1173.44
S. Brown	4		2	4			2		4	773.50
Mgr Total										\$ 1,946.94
	Ops									
J. Reynolds	4		2	6			2		6	1091.52
K. McLean	2		1	5			1		2	596.93
M. Michaels	3		1	5			1		2	648.09
V. Bruce	1		1	5			1		2	476.00
P. Gagnon	1		1	5			1			386.75
N. White	1		1	5			1			386.75
Ops Total										\$ 3,586.04
	Maint									
F. Lalonde	4		2	6			2		6	1175.04
D. Jacobson	2		1	5			1		4	699.46
W. Preston	3		1	5			1		4	750.64
S. Wallace	2		1	5			1		4	699.46
J. Black	2		1	5			1		4	699.46
Maint Total										\$ 4,024.06
Total Overtime										\$ 9,557.04

APPENDIX 6

PRE-AUDIT TEAM MEETING AGENDA

Location: Room 1201, Minto Hotel

Date: June 7, 2000

Time: 19:00 hrs

Agenda:

Item Subject

1. Introductions
2. Administrative Details
 - hotel room numbers and cell phone numbers
 - autos (incl. weekend use)
 - start / finish times (pre-audit / audit)
 - dress
 - weekends
3. Tele-conference w/ CA (where applicable)
4. Audit Plan
 - functional area assignments / functional summaries
 - work plan
 - schedule
 - inflights
 - scheduled points / sub-base visits
5. Budget
 - importance of accurate tracking
 - overtime/expenses
 - claim procedures (electronic)
6. Conflict of Interest / Confidentiality
 - shred all working drafts of findings, summaries, etc.
7. Access to Information
8. Forms Administration
 - electronic / written
 - audit findings
 - parallel audit findings
 - confirmation requests

9. Checklists (use of / amendment to)
10. Communications
 - on-site / off-site
 - within TC Civil Av
 - outside of TC Civil Av
11. Pre-Audit Review
 - previous audit / follow-up
 - files
 - company
 - aircraft
 - inspection reports (inflight, ramp, etc)
 - compliance records
 - CADORS
 - authorizations
 - company manuals
 - respect those around you
 - the glass is half full!
12. Physical Audit
 - site familiarization
 - maintenance
 - operational
 - occupational health and safety
 - company PI (role during audit)
 - daily team meetings (incl. members on road)
 - use of forms
 - immediate threat
 - paperwork expected
 - audit/parallel findings (drafting of)
13. Questions ?

APPENDIX 7

ENTRY MEETING AGENDA

Acknowledgments

Thank the company officials for their attendance, co-operation and use of their facilities.

Purpose

Explain the purpose of the meeting:

1. introduce the audit team members;
2. define the objective and scope of the audit;
3. define the methodology used during the audit; and
4. co-ordinate staff and facilities.

Introductions

Introduce the audit manager, team members, specialists and observers; and company representatives.

Objective and Scope

The objective and scope of this audit is:

- (a) to conduct an analysis of the policies, standards, procedures and facilities of (company name) to ensure that delegated authorities and Transport Canada's legislative requirements are being met and that maximum effort is made to ensure flight safety; and
- (b) to ensure compliance with the Aeronautics Act, CARs, CASS and company operations manual (COM).

Depth

The audit will

- (a) encompass, but not be limited to, the specialty areas identified, as covered by the appropriate audit checklists; and
- (b) cover the period from _____ (date) to _____ (date).

Communications

The following communication protocols will be observed:

- (a) initial communication in each audit area will be between the auditor for that area and the company official specified by _____ (company) as the contact for that area;
- (b) where problems or questions arise, team members will advise me and I will contact _____ (company representative); and
- (c) if the company has a problem or questions, it is to contact the audit manager, who will meet daily with the team leaders to discuss the day's findings and address any questions.

Methodology

Standard audit procedures are those set out in the IAM and will include:

- (a) interviews with personnel to discuss the areas of responsibility;
- (b) the examination of records, such as those for training, CCP and flight documentation;
- (c) in-flight inspections;
- (d) aircraft inspections; and
- (e) the review of manuals and directives.

In every case, the purpose of the audit is to determine the company's level of conformance to the CARs, associated standards and to company policy and procedures set out in manuals such as the COM. Our concern is adherence to standards.

Where it is determined that an examined area appears to be in order, we will move on to the next area. When the company appears to be violating a regulatory requirement, it is said to be in non-conformance.

If questions arise regarding potential or definite non-conformances:

- (a) approach the company to determine whether we are interpreting the data correctly (there may occasionally be ambiguities);
- (b) direct the company to provide missing data within a specific timeframe;
- (c) where it is determined that our perception is correct, or where the company does not respond adequately to our queries within the specified timeframe, these items will be drawn up as audit findings;
- (d) where it is determined that our interpretation of the data is correct and that flight safety is being jeopardized, the audit manager will approach the director of flight operations or designate to obtain the authorization to take appropriate action immediately; and
- (e) should the need arise, the convening authority will be approached for further guidance on appropriate action.

Queries regarding the audit should be addressed to the appropriate team leader or to the audit manager.

Every effort will be made to conduct all audit activities with minimal disruption to the company. The fact that flight operations are ongoing will be respected. Should an interview be requested, for example, it will be conducted at a mutually satisfactory time. We will tailor our hours to the company's normal working hours and team leaders will inform their staff of the protocol discussed at this meeting, with regard to communications in particular.

The auditee should be prepared to instruct the teams on OSH related issues.

Exit Meeting

The exit meeting is proposed for _____ (location) on _____ (date) at _____ (time).

Question Period

A question period will follow.

APPENDIX 8

EXIT MEETING AGENDA

Introductions

Audit Manager -

Opening Remarks

Convening Authority - (where applicable)

Executive Summaries

- Maintenance -
- Operations -

Audit Findings

Where possible, explain that there will not be a discussion on findings as these have been discussed during the teams daily meetings with the company and that further discussion may take place through the Corrective Action Plan approval process.

Post-Audit

Explain the next stage of the audit:

- Inform the attendees that the audit report will be completed in ten working days (review briefly the content of the report).
- Explain that the report will be reviewed by the Convening Authority and his managers/representative from Maintenance & Manufacturing, Maintenance and Manufacturing as well as Aviation Enforcement (indicate the possibility of Aviation Enforcement action). Also indicate that the audit management team will be involved with the approval process.
- State that the company will have thirty working days (from the date of receipt of the report) to respond with a Corrective Action Plan that highlights the short- and long-term actions proposed to rectify any non-conformance.
- Explain that the company can expect follow-up inspections after the Corrective Action Plan has been completed to confirm the effectiveness of that action plan.
- Indicate that the company will be advised when the audit is formally closed.

Access to Information

(Discuss briefly)

Closing Remarks

Invite Company Pres/CEO to make any closing comments; and Audit Manager close meeting

APPENDIX 9 AUDIT REPORT COVER LETTER



Toronto, Ontario

M5F 7J9

Registered

5258-1-23456

July 6, 2000

Mr. I. Stravinski

(add correct title), Acme Aero Limited

Macdonald-Cartier International Airport

Ottawa, Ontario K1P 5L6

Dear Mr. Stravinski:

Enclosed with this letter you will find two copies of the Audit Report resulting from the regulatory audit of Acme Aero Limited completed on June 23rd, 2000. I am pleased to inform you that while the report contains (x) Maintenance and (y) Operations audit findings, the Audit Manager has assured me that Acme Aero is operating in a safe manner. For your convenience, you will find a summary of the most significant audit findings in Part II of the report.

Acme Aero must respond in writing to each audit finding. The proposed Corrective Action Plan (CAP) should detail both short term corrective action to correct the specific deficiencies cited and, where applicable, long term corrective action. Long term corrective action should focus on modifying the system to prevent recurrence of similar deficiencies in the future.

Acme Aero is requested to complete the Corrective Action Form on the reverse of each Finding Form and forward these to my office no later than Aug 22nd, 2000.

The co-operation extended to the audit team by you and your staff during the audit was appreciated.

Yours truly,

R. Jonson

Convening Authority

Attachments (2)

Canada

Page 1 of 1

APPENDIX 10

AUDIT REPORT

Acme Aero Limited Audit June 5 - 23, 2000

Note: Items marked with an asterisk (*) can be included or removed from the audit report at the discretion of the convening authority, refer to Section 2.11 for applicable criteria.

Audit Report

This report consists of four parts:

- **Part I – Introduction**
Includes the executive summary and summarizes the audit process and the content of the audit report.
- **Part II – Maintenance Specialty Area Summaries**
contains the maintenance specialty area element (checklist) summaries
- **Part III – Operations Specialty Area Summaries**
contains the operations specialty area element (checklist) summaries;
- **Part IV – Audit Findings**
contains the Audit Findings

PART I — INTRODUCTION

Executive Summary

General

The audit examined Acme Aero's Maintenance and Operations Divisions using applicable Maintenance and Operations checklists referenced from the Inspection and Audit Manual (IAM). A total of 10 Maintenance and 17 Operations audit findings were submitted. These findings identified examples of non-conformance to the Canadian Aviation Regulations (CARs), standards or Acme Aero's policies or procedures. A number of the findings were administrative in nature and can be easily corrected, whereas others were systemic and will require particular attention to ensure that corrective actions are effective in addressing the identified system faults.

Maintenance

The Transport Canada maintenance team reviewed all of the specialty areas applicable to Acme Aero Limited. The Acme Aero maintenance requirements and system was assessed to the Canadian Aviation Regulations (amendment 20-1) and individual Maintenance Control (Original May 31, 1997) and Maintenance Policy (Rev. 3, dated August 13, 1999) Manuals. The Maintenance Policy Manual (MPM) was approved October 16, 1996. Items that failed to conform to the above documents were recorded as audit findings.

The audit team sampled two HS74, one PA31 and two DA20 aircraft. Notice of Inspection forms were issued for two aircraft that had minor discrepancies. During aircraft inspections the absence of exterior placards on some aircraft resulted in the company completing an immediate fleet wide campaign to insure all safety placards were in place. Overall, the quality of the aircraft inspected was found to meet the applicable standards. Company facilities were found to be adequate for the scope of work and are well maintained.

The greatest areas of concern were found in the areas of the Maintenance Control Manual (MCM), Airworthiness Directive compliance and Technical Records. In addition to this, the maintenance evaluation program and quality assurance system require enhancements to achieve full functionality. Company management have demonstrated a positive attitude towards the audit and have acted proactively towards findings that have been identified.

Operations

The Operations Team audited 21 specialty area elements in accordance with the provisions of the Inspection and Audit Manual to ensure that Acme Aero operations conform to the requirements of the Canadian Aviation Regulations (CARs), associated standards and company control manuals. In addition to a comprehensive review of company documentation, control procedures and management personnel qualifications, the audit team conducted a series of in-flight and ramp inspections.

Deficiencies were noted in nine specialty areas resulting in sixteen audit findings. Most of these represent deficiencies in administrative procedures and guidelines that are to be specified in the company control manuals, specifically the Company Operations Manual, the Flight Attendant Manual and the HS-748 Minimum Equipment List.

The areas requiring immediate attention are: the flight crew training programs, which currently lack some essential elements; flight crew training records, which require a detailed system to ensure flight crews have met all training requirements; and procedures to monitor and report on CCP activities. The company will also want to review the HS-748 MEL and the MCM which currently contain conflicting procedures

The above deficiencies notwithstanding, the review revealed that Acme Aero Limited is conducting a safe operation and that a knowledgeable, competent management team has been assembled to oversee a staff and crews that have the ability and desire to operate within the regulatory framework. The company's response upon learning of any deficiency was immediate and indicative of Acme Aero's focus on safety.

Objective and Scope

This routine conformance audit was conducted on Acme Aero Limited during the period of June 5-23, 2000. The audit covered the period from June 20, 1997 to June 5th, 2000 and included reviews in the following areas:

- a) maintenance (AMO and air operator programs);
- b) flight operations;
- c) cabin safety;
- d) the transportation of dangerous goods; and
- e) aviation occupational safety and health.

Company - General *

Acme Aero Limited is an aviation company formed in 1984. It offers both a scheduled and non-scheduled domestic air service from the main base at Macdonald-Cartier International Airport, with sub-bases in Toronto/Lester B. Pearson International Airport and Montreal International (Dorval).

Acme Aero Limited operates one PA31 and two DA20 aircraft from its main base, one HS-748 from each sub-base, plus one PA31 from the sub-base in Toronto. The HS-748s offer a scheduled service between Toronto and Windsor, Ontario and between Montreal and Val D'Or, Quebec. The PA31s operate on a charter basis and are available for med-evac under a standing offer with the Ministry of Health for the Province of Ontario. The DA20s have been added to the Air Operator Certificate since the previous audit in June 1997 and operate under contract to a major courier company. The operator transports dangerous goods by air.

Aircraft maintenance is performed in-house at all three bases. There is a full-time staff of eight Aircraft Maintenance Engineers, five apprentices and two technicians. The Aircraft Technical Records are kept at the main base in Ottawa.

The company has experienced steady growth and now employs over one hundred people.

Audit Synopsis

Mr. R. Jonson, Regional Director Civil Aviation, Ontario Region, convened Acme Aero's 2000 audit under the provisions of the Inspection and Audit Manual (IAM). The audit assessed Acme Aero's level of conformance with the regulatory requirements governing operations of Canadian air operators. The audit was conducted in accordance with policy and procedures detailed in the IAM employing standard, industrial auditing techniques. These techniques included interviews with key personnel, review of approved documents, sampling of relevant files, and random inspections throughout Acme Aero's system. The audit entry meeting was held in Acme Aero's executive offices at Ottawa's Macdonald-Cartier

International Airport on June 12th, 2000. During this meeting, the audit manager briefed the operator's management on the general audit process and the team's specific plans for the audit of Acme Aero. Throughout the audit, team leaders kept Acme Aero's officials informed of the audit progress and of all audit findings submitted. During the audit, Maintenance and Operations team members inspected specialty areas within the main base in Ottawa as well as Acme Aero's route structure. The audit was completed and the exit meeting held at Acme Aero's executive offices on June 23rd, 2000 with Acme Aero's President and Chief Executive Officer, Mr. Ian Stravinski, and the Convening Authority in attendance.

Audit Team

Position	Name	Region	Phone	Cell/Pager**
Convening Authority	R. Jonson	Ont	416-952-0001	416-987-6542
Audit Manager	T. Smith	Ont	416-952-0002	416-987-6543
Administration	S. Brown	Ont	416-952-0003	416-987-6544
Team Leader (Ops)	J. Reynolds	Ont	416-952-0004	416-987-1234
Flight Ops	K. McLean	Ont	416-952-0005	416-987-1235
Flight Ops	M. Michaels	Ont	416-952-0006	416-987-1236
Cabin Safety	V. Bruce	Ont	416-952-0007	416-987-1237
Dangerous Goods	P. Gagnon	Ont	416-952-0008	416-987-1238
AOSH	N. White	Ont	416-952-0009	416-987-1239
Team Leader (Maint)	F. Lalonde	Ont	416-952-0010	416-987-2345
Maintenance	D. Jacobson	Ont	416-952-0011	416-987-2346
Maintenance	W. Preston	Ont	416-952-0012	416-987-2347
Maintenance	S. Wallace	Ont	416-952-0013	416-987-2348
Maintenance	J. Black	Ont	416-952-0014	416-987-2349

** *Note:* use of cell or pager numbers in the audit report is optional.

Company Management

Name	Title	Telephone No.
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Corrective Action Plan

Audit Findings identify a situation where an Acme Aero policy, procedure, or activity does not conform to an approved company manual or to the applicable regulatory standard. The company must respond in writing to each audit finding, detailing short term corrective action to correct the specific examples listed, and long term systemic corrective action to prevent recurrence of similar situations. Transport Canada Civil Aviation will monitor implementation of Acme Aero's Corrective Action Plan through the audit follow-up process described in the IAM.

Review of Findings by Aviation Enforcement

Aviation Enforcement routinely reviews all audit findings after an audit and will advise Acme Aero through normal channels if it proposes to take action concerning any finding(s).

PART II — MAINTENANCE SPECIALTY AREA SUMMARIES *

Note: if specialty area summaries are not included in the report, the executive summary must clearly outline those areas where findings were raised.

The audit focused on 26 areas relating to Air Operator Maintenance Requirements and 17 areas attributed to that of the Approved Maintenance Organization. A brief description of the areas where findings were made is provided.

Air Operator Maintenance Requirements *

AOC – 02 Maintenance Control Manual *

The company utilizes individual Maintenance Control and Maintenance Policy Manuals. A discrepancy relating to policy and procedures for the control of maintenance / service instruction information was raised. The responsibility for obtaining and making technical information available resides with the Air Operator, whereby MCM policy and procedures must specify how the operator will ensure that publications are available and current. Other minor deficiencies were noted in the MCM; these are documented under a separate finding.

AOC – 04 Evaluation Program *

Audits are generally completed as indicated in the MPCM and follow up procedures have been completed, or are in the completion process. Independent Inspection anomalies, illegible entries and data entry errors and omissions were identified during this audit indicating that the daily sampling of log books and weekly surveillance is not being accomplished as required.

AOC – 06 Technical Records *

Conformity Certificates providing the details of maintenance performed were not generated as required or were found to be incomplete. In other instances, the company did not always comply with requirements to transcribe maintenance details into the permanent technical record.

AOC – 12 Defect Recording, Rectification and Control Procedures *

A review was conducted on a sampling of each type of aircraft in the Acme Aero fleet. Findings indicated recurring defects are not identified as such because the company definition differs from the Canadian Aviation Regulations.

AOC – 13 Airworthiness Directives / Service Bulletins Compliance *

On one occasion the company permitted the operation of an aircraft for up to 43 hours with an outstanding Airworthiness Directive requirement. In addition, this aircraft was operated while a particular Airworthiness Directive was not fully complied with. The company immediately removed the aircraft from active service while a follow up review with the AMO that completed the work was conducted

Approved Maintenance Organization *

AMO – 10 Qualification and Training *

The maintenance training requirements of CAR 573.06 and 706.12 are being met, although no formal procedures for the planning and control of maintenance training have been developed. The company indicated that an amendment to the MPM is underway and will resolve this deficiency when completed.

PART III — OPERATIONS SPECIALTY AREA SUMMARIES *

Note: if specialty area summaries are not included in the report, the executive summary must clearly outline those areas where findings were raised.

The audit focused on 21 areas of company operations resulting in 17 findings. Specialty area elements not mentioned below were found to meet regulatory requirements.

FO – 3 Company Manuals *

During the review of the company manuals, several areas were identified where procedures were either not linked from one manual to another or were lacking elements needed to fully comply with regulatory requirements. These, as well as shortcomings in the Dispatch Manual (see FO-9) and the Flight Attendant Manual (see CS-2), were identified under a single audit finding to simplify preparation of the corrective action plan and subsequent post-audit follow-up. A finding was also assigned to the Company Operations Manual for the lack of any mention of the Flight Safety Program, a requirement for all 705 operations.

FO – 6 Company Check Pilot (CCP) Program *

Acme Aero has three Type A CCPs and one Type B CCP. One of the Type A CCP's was found to have conducted 2 PPCs while his authority had expired due to a monitor ride not being done. This resulted in the company removing two pilots from flight status until such time as their PPCs could be renewed by a qualified CCP. It was also noted that the company had not implemented the required monitoring system to ensure that a CCP's authority is valid prior to scheduling the CCP to conduct a flight check. In addition to this, the monthly schedule of proposed flight checks was not being submitted to Transport Canada, nor was notification of CCPs who were no longer with the company.

FO – 7 Flight Crew Training Program *

The company flight crew training programs were reviewed and a number of deficiencies were identified. These resulted in three audit findings being assigned. A number of training programs were missing essential elements, the most important of which was the lack of night flying training during HS74 initial flight training, and emergency procedures practical training that is not being conducted in accordance with the standard. In addition to this, joint CRM training is not being conducted with flight attendants. It was also noted that some training programs were lacking the training examinations that are to be used to confirm that the candidate has grasped the required training.

FO – 8 Flight Crew Training Records *

The training records of 19 pilots were reviewed and a number of errors and omissions were noted. In one case, Acme Aero was requested to provide documentation indicating that the annual technical ground training for three HS74 flight crew had in fact been completed. The company was unable to do so. Further to this, company senior management were unaware that training had not been completed and that extensions had been granted by the TC Regional office. The reason for this was that the extensions had not been placed in the appropriate training files.

It was also noted that the company does not maintain a record of all required training elements where those elements are imbedded in other training programs (ex., CRM, HAI and MEL training are part of the annual ground training program and therefore not identified individually in the training records).

FO – 9 Operational Control System *

The flight dispatch office consists of a manager, two duty managers, 4 dispatchers and crew scheduling and operations co-ordination staff. The operational control system is well-organized with only a few areas in the Dispatch Manual requiring clarification. One Finding was made that pertained to the reporting relationships of the flight dispatch duty managers. They should not report to the Vice President, Operations on operational matters, since that position is not required to be filled by a certified flight dispatcher.

FO – 13 Minimum Equipment List *

A review of the company's Minimum Equipment List manuals and procedures resulted in two audit findings. These pertained to MEL procedures that were in conflict with maintenance procedures specified in the MCM, and out-of-date amendments.

CS – 2 Flight Attendant Training Program *

Although some discrepancies between the Initial Flight Attendant Program and the Flight Attendant Manual were noted, the overall Flight Attendant Program was being well maintained under the guidance of the Company's Learning and Development Co-ordinator. The variances were recorded under Company Manuals (finding FO-3-2).

DG – 1 Dangerous Goods *

The dangerous goods program at Acme Aero is satisfactory and company personnel are knowledgeable and professional in the conduct of their assigned tasks. One shortcoming was noticed where training records for two individuals did not contain a copy of the required training certification.

AOSH-1 Aviation Occupational Safety and Health (A-OSH) *

Acme Aero's A-OSH program is maintained by two conscientious officers who exhibit support for the safety and health of employees. Through co-ordination and co-operation between the offices of Safety and the Facilities Environment and Site Safety, the appropriate occupational safety and health reports are provided in accordance with the standard with one exception that pertained to incomplete documentation and follow-up to an on board flight attendant injury.

PART IV — AUDIT FINDINGS

- Maintenance Audit Findings
- Operations Audit Findings

APPENDIX 11
CORRECTIVE ACTION TRACKING FORM

* can be used in addition to NACIS, see section 2.14

Functional Area		Finding #	Compl Date (proposed)	Milestones/Prog Review Pts	Follow-up (O/A) Date	Completion Date
AOC-02	Maintenance Control Manual					
AOC-03	Person Responsible for Mtce					
AOC-04	Evaluation Program Technical Publications					
AOC-05	Technical Publications Technical Records					
AOC-06	Technical Records Evaluation Program					
AOC-07	Weight and Balance Control					
AOC-08	Mtce Development Programs					
AOC-09	Reliability Monitoring Programs					
AOC-10	TBA					
AOC-11	Maintenance Planning					
AOC-12	Defect Recording, Rectification Control					
AOC-13	Airworthiness Directive, SB's					
AOC-14	Extended Range Ops ETOPS					
AOC-15	Minimum Equipment List					
AOC-16	Category II-III All Weather Ops					
AOC-17	Technical Dispatch Procedures					
AOC-18	Flight Authorities - Test - Ferry					
AOC-19	Maintenance Arrangements					
AOC-20	Training Program					
AOC-21	Personnel Records					
AOC-22	De-icing Procedures Elementary Work					
AOC-23	Elementary Work De-icing Procedures					
AOC-24	TBA					

 Follow-up OPI

 Date

APPENDIX 12
AUDIT ADMINISTRATIVE REQUIREMENTS

<p><u>Documents:</u> <i>Make sure that you have the most current revisions!</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Copy of the IAM <input type="checkbox"/> Copy of CAR and STD 571 <input type="checkbox"/> Copy of CAR and STD 573 <input type="checkbox"/> Copy of MPM/MCM Guide <i>(circle one or both as applicable)</i> 	<ul style="list-style-type: none"> <input type="checkbox"/> Copy of Transport Canada phone numbers/contacts <input type="checkbox"/> Copy of the Audit Plan <input type="checkbox"/> Copy of company's MPM/MCM <i>(circle one or both as applicable)</i> <input type="checkbox"/> Blank Audit Finding Forms (10) <input type="checkbox"/> Blank Confirmation Request Forms (CRFs) (5)
<p>Audit Manager only:</p> <ul style="list-style-type: none"> <input type="checkbox"/> CRFs Control Sheet <input type="checkbox"/> Audit Report Template (MS Word) 	<ul style="list-style-type: none"> <input type="checkbox"/> Audit Information Report Summary
<p><u>Computer/Communications:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Laptop <input type="checkbox"/> CARs (CD) <input type="checkbox"/> Phone line cable <input type="checkbox"/> Power cable 	<ul style="list-style-type: none"> <input type="checkbox"/> ½ " Floppy drive <input type="checkbox"/> ½ " Floppy discs Printer and cables (if applicable) <input type="checkbox"/> Cell Phone <input type="checkbox"/> Activate office call-forward/extended absence message
<p><u>Entry/Exit Data:</u></p> <p>Start/Stop times: ____:____/____:____</p> <p>Daily De-Brief: ____:____</p> <p>Exit Mtg. date/time: ____/____:____</p>	<p>Date final Audit Rpt. delivered: _____</p> <p><i>Add 30 working days for CAP</i></p> <p>Date CAP MUST BE submitted: _____</p>
<p><u>Inspector:</u></p> <p><u>Transportation/Accommodations:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Vehicle booked and confirmation number (if required)# _____ <input type="checkbox"/> Hotel booked and confirmation number (if required)# _____ <input type="checkbox"/> Airline tickets arranged for and confirmation number # _____ 	<p><u>Official Credentials:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Delegation Card <input type="checkbox"/> Transport Canada I.D. <input type="checkbox"/> Airport Pass <input type="checkbox"/> Business Cards

Office Equipment / Consumables

- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> Straight Edge <input type="checkbox"/> Stapler <input type="checkbox"/> Hole punch <input type="checkbox"/> Printer Paper (if applicable) <input type="checkbox"/> Highlighters (<i>different colours</i>) | <ul style="list-style-type: none"> <input type="checkbox"/> Pens (2) <input type="checkbox"/> Liquid Paper <input type="checkbox"/> Post-It© Notes <input type="checkbox"/> Notepaper Pads <input type="checkbox"/> Elastic bands <input type="checkbox"/> Paper clips |
|---|--|

Notes:

Forms

24-0008	Aircraft Inspection
24-0018/-18A	Letter of Notification, Foreign Reg'd (-18A follow-up)
24-0019/19A	Letter of Notification (-19A is follow-up)
24-0038	SDR Form
24-0031	Distributership, Certificate of Approval
24-0043	C of A Application
24-0044	Flight Permit Application
24-0045	Conformity Certificate - Repair or Modification
24-0049	Export Certificate of Airworthiness
24-0050	C of A for Export Application
24-0059	AAIR
24-0064	AMO Aircraft Limitations
24-0066	AMO Certificate
24-0070	AMO Application
24-0073	C of A
24-0074	C of A, Special
24-0075	Flight Authorization
24-0083	AME Application
	AME Application Supplement-Technical Examinations
26-0365	Notice of Detention of Aircraft
26-0367	Notice of Suspension-Immediate Threat
26-0370	Notice of Suspension
26-0471	Detection Notice
61-0008	Inspection Snag Sheet
26-0471	Detection Notice
61-0008	Inspection Snag Sheet

CHAPTER 4 CHECKLISTS

4.1 PURPOSE

Inspection and audit checklists have been developed to provide a systematic approach to the inspection of an organizations' various element areas. The checklists are designed to guide auditors through specific items within the element area. Questions contained within the checklist(s) are intended to stimulate analysis of the element considering the performance based nature of our regulations. Normally, each question contains a reference(s) to applicable regulatory requirements for the auditor's convenience. Where an operator fails to comply with requirements, they will be considered in non-compliance, which will necessitate corrective action.

The AM&M Inspection and Audit (Checklists) Manual is made available to any organization or operator; it is hoped that they will make use of the material presented in this manual as they evaluate their systems for effectiveness and compliance with regulatory requirements. It is anticipated that companies will further develop checklists and materials that pertain to processes and procedures described in their company manuals.

4.2 APPLICABILITY

Audit checklists will:

- (a) be used in the inspection of a process, procedure or program;
- (b) be amended to reflect the current revision of the applicable regulation or standard
- (c) be supplemented to include processes specified in the appropriate control manual;
- (d) be completed or have areas that are not completed so annotated; and
- (e) be signed and dated by the team member responsible for that specialty area or specialty area sub-group.

4.3 SPECIALTY AREA CHECKLISTS

The following specialty areas have checklists developed, which cater to Maintenance and Manufacturing functional responsibilities:

Certificate Holder / Canadian Aviation Regulation	Checklist Ref.
Air Operator maintenance requirements / CAR 706	AOC 702 / 703
	AOC 704 / 705
Flight Training Unit maintenance requirements / CAR 403	FTU 403
Private Operator maintenance requirements / CAR 604	POC 604
Approved Maintenance Organization / CAR 573	AMO 573
Approved Training Organization CAR 403	ATO 566
Approved Manufacturing Organization AWM 561	MAN 561

4.4 CHECKLISTS

4.4.1 GENERAL

Inspection checklists, forms and other guidance materials will guide inspectors through the inspection process of a particular element area. Regardless of the purpose for the inspection (routine; annual inspection, special purpose audit) the checklists, forms and guidance materials are to be used as indicated. This ensures that all inspections are conducted in a uniform manner and that the results of the activity are appropriately documented.

4.4.2 SPECIFIC CHECKLISTS

Certain element area checklists or guidance documents provide a level of detail that is suitable for completing certification activities. The checklist or guidance document may, when completed, ensure a complete review of that particular aspect or characteristic of a company. Often, these checklists aid or assist inspectors (and operators who use the checklists during their certification activities) to interpret regulatory requirements in a standardized manner.

An example of this is the Master Minimum Equipment List / Minimum Equipment List Policy and Procedures Manual TP 9155. When the requirements of this manual have been addressed and all items have been assessed "OK", then the operator would be ready to utilize specific MELs once approved for their aircraft type.

As indicated in section 3.3.3.3 of the IAM, there are times when it is not possible or necessary to examine 100% of a company's systems. Sampling principles would then apply and inspectors are authorized to use this technique in meeting their objective. It is also important that the inspector document what element(s) were covered by the activity undertaken and what portions of the checklist(s) that were completed and what were not. This is simply indicated by using the "N/C" (not checked) box on the checklist or by providing a short narrative. Checklists utilized are to be appended to the appropriate company audit file and therefore will be available for review by follow-on inspection personnel/ audit teams; this will allow future inspections to focus on those areas that were not reviewed during the previous activity.

4.4.3 CHECKLIST AMENDMENT

Checklist(s) will be revised as required. Amendments are published as complete Parts. Current checklist revision date noted in the lower left corner of the checklist page footer should match the date for the applicable Part noted on the next page.

INSPECTION AND AUDIT CHECKLISTS

- Part 1 Air Operator maintenance requirements CAR 706, organizations certified under CAR 704 or CAR 705 (March 2001)
- Part 2 Air Operator maintenance requirements CAR 706, organizations certified under CAR 702 or CAR 703 (March 2001)
- Part 3 Maintenance Organization requirements CAR 573 (August 2005)
- Part 4 Flight Training Unit maintenance requirements CAR 403 (March 2001)
- Part 5 Manufacturing Organization requirements AWM 561 (March 2001, under review)
- Part 6 Training Organization requirements CAR 403 / Std. 566 (March 2001)
- Part 7 Private Operator maintenance requirements CAR 604 (May 2001)