



Australian Government

Civil Aviation Safety Authority

SURVEILLANCE REPORT

Coulson Aviation (Australia) Pty Ltd

ARN: 786315

Part 138

Surveillance Dates: 30/05/2023 to 31/05/2023

Released under Freedom of Information Act

Executive Summary

Title

Monitoring and Response Surveillance Report

Level 2 CASA Surveillance Activity - Coulson Aviation (Australia) Pty Ltd - Part 138

Aerial Work - Aerial Fire Fighting

Introduction

This Surveillance Report provides a summary of the Monitoring and Response Surveillance Level 2 surveillance activity conducted on Coulson Aviation (Australia) Pty Ltd, from 30 to 31 May 2023.

The purpose of this surveillance activity was limited in scope to assess the organisation's risk management procedures and protocols, actions taken to enhance risk mitigation strategies, organisational and procedural changes, training practices, proactive measures, collaborations with regulatory bodies, and the communication of lessons learnt as a result of the organisation's two heavy aircraft accidents.

The Report includes the scope of enquiry outlining the questions asked during the surveillance activity and a brief summary of the organisation's responses. Additionally, key findings and requested documents are presented.

Scope of Enquiry

1. Identification and Assessment of Potential Risks:

- Accidents involving B737 N619SW:
 - Response: Coulson FW Ops Manual Issue 3 Rev 6 - E-Request.
 - Response: 2C1.1.1 Flight Risk Assessment Tool (Post Herc).
 - Response: Requested documentation was not able to be provided at the time of the surveillance activity. Coulson Aviation Australian and North America operations are managed independently. The Coulson Aviation Australia Safety Manager did not have access to requested documentation; pre flight risk management activities.

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2. Risk Management Procedures and Protocols:

- Prior to the accidents:
 - Response: Coulson FW Ops Manual Issue 3 Rev 6 - E-Request.
 - Response: No documented guidance identified.

- Modifications or improvements since the accidents:
 - Response: Post HERC Accident: Flight Operations FW - Safety Risk Registry (ATSB Report Recommendation) - E-Request.
- 3. Enhancement of Risk Mitigation Strategies:
 - Actions taken to prevent similar incidents:
 - Response: Increase in height and speed - Bulletin No. 2023-01 - E-Request.
 - Response: No longer rebugging (amending load w&b post retardant drops) - Bulletin No. 2023-02 - E-Request.
 - Response: Risk Mitigation Discussion - Speed/Height/Rebugging - E-Request - US Document.
 - Response: Policy initiated regarding only using US or equivalent trained Lead Pilots / Bird Dog Pilots - CAA Leadplane Letter 21 February 2023.
- 4. Training and Information Dissemination:
 - Ensuring pilots and crew members are adequately trained and informed:
 - Response: HOFO (Coulson Aviation Aust) sent an email to all company flight crew.
 - Response: US crew did an Air Maestro course in Spring Training in the US.
 - Response: During induction, flight crew are trained in the use of FRAT (FW/Rotary) - this material was not sighted.
 - Response: CFIT Training.
- 5. Proactive Risk Management Measures:
 - Continuous identification, evaluation and addressing of potential risks:
 - Response: Safety Action Groups.
 - Response: Risk Registers - reviewed monthly.
- 6. Collaborations and Initiatives
 - Collaborations with regulatory bodies or industry organisations:
 - Response: CASA Firefighting Campaign.
- 7. Communication and Lessons Learned:
 - Sharing lessons learned from accidents and improving risk management:
 - Response: Spring Training Powerpoint - s47F developed a presentation that has been delivered to global Coulson Aviation Flight Crew.

Conclusion

The level 2 surveillance activity provided insights into Coulson Aviation (Australia) Pty Ltd's risk management procedures and protocols, actions taken to enhance risk mitigation strategies, organisational and procedural changes, training practices, proactive measures, collaborations with regulatory bodies, and communication.

Requested Documentation

2 x Operational Safety Investigations.

B737 Accident Safety Report.

Safety Investigation conducted by Coulson Global.

Exit Meeting Comments

1. Finding: FRAT Guidance.
2. Finding: Disconnect between Coulson Global and Australia - access to safety data/information.
3. Confusion over Part 138 approval status at the time of the B737 accident.
4. Investigations - Outstanding.

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28/06/2023

Released under Freedom of Information Act

Statement of confidential nature of the contents

This Surveillance Report is a confidential document between CASA and the authorisation holder. CASA will not disclose this report or its content to any third person except, in pursuance of its functions, with the express permission of the authorisation holder or as required by law.

Surveillance objective

The objective of the surveillance is to assess the ability and willingness of an authorisation holder to comply with all applicable legislative obligations.

Surveillance team

Name	Discipline
s22	Airworthiness Inspector
	Safety Systems Inspector
	Flying Operations Inspector

Dates and places – Onsite surveillance

Date	Location
30/05/2023 - 31/05/2023	Coulson Aviation Australia Pty Ltd Head Office, Bankstown Airport

Surveillance scope

The surveillance scope is the extent and boundaries of the surveillance activity.

Scope item	Findings Issued
Operational Standards	Nil
* Safety Assurance	1
Safety Risk Management	4

* Item added to original scope

** Item originally scoped but not completed

Summary of surveillance findings

Surveillance finding(s) are the result of the evaluation of the collected surveillance evidence against the surveillance criteria.

No.	Type	Subject/Title	Due Date
826882	SO	No Documented Guidance Regarding the use of the Flight Risk Assessment Tool (FRAT)	N/A
826883	SO	Coulson Aviation (Australia) Pty Ltd Access to Safety Data	N/A
826946	SO	Hazard and Risk Register Procedures	N/A
730810	SF	Operational Safety Hazard Identification and Risk Mitigation	19/07/2023

A total of 4 finding(s) have been issued as a result of this surveillance. Of these finding(s) 1 are Safety Finding(s) that require a response by the due date.

Documents used as standards and reference

Document Name
Exposition Issue 3, Rev 6, December 2022

Key people interviewed during the surveillance

Name	Position	Date
	Director of Engineering	30/05/2023 - 31/05/2023
	Captain (PIC - Incident Flight)	30/05/2023
	Aviation Safety Manager	30/05/2023 - 31/05/2023
	Director of Flight Operations	30/05/2023 - 31/05/2023



Authorisation holder:	Coulson Aviation (Australia) Pty Ltd	Issued Date:	28/06/2023
ARN:	786315	Safety Observation No:	826882
Contact address:	12 Drover Road Bankstown NSW	Postcode:	2200
Subject/Title:	No Documented Guidance Regarding the use of the Flight Risk Assessment Tool (FRAT)		
System:	Safety Management		
Element:	Safety Risk Management		

Safety Observation Details:

It was noted that there is no documented guidance regarding the use of the Flight Risk Assessment Tool (FRAT). The FRAT is a crucial component of flight operations, as it assists in assessing and managing risks associated with each flight.

Safety Concern: The absence of documented guidance on the FRAT in the manual suite poses a safety concern for the organisation. Without clear instructions and procedures on how to effectively utilise the FRAT, flight crews may be left without a standardised risk assessment process. This lack of guidance increases the potential for inconsistencies in risk evaluation, decision-making, and the implementation of appropriate risk mitigation measures.

Risk implications:

- Inadequate Risk Assessment:** Without proper guidance on the FRAT, flight crews may not conduct comprehensive risk assessments, leading to the possibility of overlooking potential hazards and inadequate risk mitigation strategies.
- Inconsistent Decision-Making:** The absence of standardised procedures may result in inconsistent decision-making among flight crews when faced with similar risk scenarios. This inconsistency can undermine the organisation's ability to maintain a consistent safety culture.
- Limited Safety Awareness:** In the absence of documented FRAT guidance, flight crews may not fully understand the importance of conducting thorough risk assessments or may not be aware of best practices in utilising the FRAT. This limitation can compromise safety awareness and contribute to an increased risk of incidents or accidents.

Issuing Inspector Name: Chris Peters

A Safety Observation is a document used to advise an authorisation holder of:

- latent conditions resulting in system deficiencies that, while not constituting a breach, have the potential to result in a breach if not addressed, and/or
- potential areas for improvement in safety performance



Authorisation holder:	Coulson Aviation (Australia) Pty Ltd	Issued Date:	28/06/2023
ARN:	786315	Safety Observation No:	826883
Contact address:	12 Drover Road Bankstown NSW	Postcode:	2200
Subject/Title:	Coulson Aviation (Australia) Pty Ltd Access to Safety Data		
System:	Safety Management		
Element:	Safety Risk Management		

Safety Observation Details:

It was observed that the organisation does not have access to comprehensive safety data due to the separation of data sources (Coulson Aviation (Australia) Pty Ltd operations does not have access to global Coulson Aviation safety data despite utilising the same aircraft in regard to LAT operations. This lack of access to all available safety data poses significant safety implications, which are further magnified in a highly specialised activity such as Large Air Tanker (LAT) firefighting operations, where such data is inherently limited.

Observation details:

- 1. Data Separation:** It was noted that flight safety data, including incident reports, accident investigations, and lessons learned, is distributed among various entities and stakeholders involved in aviation operations. As a result, Coulson Aviation Australia Pty Ltd does not have unrestricted access to the complete range of flight safety data.
- 2. Limited Safety Insights:** The limited access to flight safety data restricts Coulson Aviation Australia Pty Ltd's ability to gain valuable safety insights and learnt from past incidents and accidents. Without a comprehensive understanding of the safety landscape, the organisation may be unable to identify potential hazards, develop effective risk mitigation strategies, or make informed decisions to enhance safety practices.
- 3. Incomplete Risk Assessment:** The absence of access to safety data hampers the organisation's ability to conduct thorough risk assessments. Without a holistic understanding of historical incidents and accidents, Coulson Aviation Australia Pty Ltd may overlook critical safety risks associated with their specialised activities. This can result in inadequate safety measures and increase the likelihood of accidents or injuries.
- 4. Missed Learning Opportunities:** Safety data plays a crucial role in facilitating organisational learning and continuous improvement. By not having access to all available safety data, Coulson Aviation Australia Pty Ltd may miss out on valuable lessons learned from other organisations, both within and outside their specific industry. This lack of cross-industry knowledge sharing can impede the development of best practices and limit the organisation's ability to implement effective safety measures.



Issuing Inspector Name: s22

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Authorisation holder:	Coulson Aviation (Australia) Pty Ltd	Issued Date:	28/06/2023
ARN:	786315	Safety Observation No:	826946
Contact address:	12 Drover Road Bankstown NSW	Postcode:	2200
Subject/Title:	Hazard and risk register procedures		
System:	Safety Management		
Element:	Safety Risk Management		

Safety Observation Details:

The fixed wing Safety Manager (SM) demonstrated the hazard and risk register for the surveillance team. Working through a number of examples it became clear that the policy of the SM was to close off events in the register once the incident had been referred to another department manager.

This does not allow the SM to know where those events are up to, what action has been taken, nor if that action was effective in mitigating the risk.

It also came to light that there are a number of SMs, one for each certificate.

It is recommended that the SMs are consolidated into one safety management team.

It is also recommended that the relevant SM does not close events off the register until they are confident all necessary action taken to mitigate the risk has actually been taken and is effective. Not just that it has been referred to someone else.

Issuing Inspector Name: s22

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- latent conditions resulting in system deficiencies that, while not constituting a breach, have the potential to result in a breach if not addressed, and/or
- potential areas for improvement in safety performance



Safety Finding

Authorisation Holder:	Coulson Aviation (Australia) Pty Ltd		
ARN: 786315	CASA Ref: F21/29716-4	Safety Finding Ref No:	730810
Contact address:	12 Drover Road Bankstown NSW	Postcode:	2200
Regulatory reference:	regulation 138.145 (b) and (c) of the Civil Aviation Safety Regulations 1998 (CASR 1998)		
Subject/Title:	Operational Safety Hazard Identification and Risk Mitigation		
System-Elements:	Safety Management - Safety Risk Management and Safety Management - Safety Assurance		

Note: In applying the principles of procedural fairness, CASA approaches its regulatory functions in a consultative and collaborative manner. Therefore CASA extends to the authorisation holder the opportunity to consider, comment on or object to this Safety Finding.

It should also be noted that issue of a Safety Finding does not in any way prejudice CASA's prerogative to take at any time such regulatory or other legal action as may be appropriate in the circumstances.

Details of deficiency:

It was identified safety reviews/investigations have been inadequate in identifying and addressing operational hazards. Identifying hazards and initiating mitigating actions is imperative to preventing future incidents and ensuring operational safety.

Details of the finding:

1. Inadequate Investigation / Hazard Identification / Mitigating Actions
 1. The safety reviews/investigations reviewed (in addition to the two hull loss accident reports) highlight an organisational failure to comprehensively analyse incidents. The scope of the review/investigations was limited, resulting in the exclusion of potential hazards and contributing factors that could have led a repeat incident or accident. Insufficient analysis prevents the identification of underlying causes necessary for implementing effective preventive measures.
 1. Report Tracking Id#: 2022-DEC-10:
 1. The Flight Crew did not raise a record in the maintenance log regarding the issue with the landing gear.
 2. There is no mention of follow up with Flight crew regarding their failure to raise and record the landing gear issue.
 3. No evidence of further investigations to ascertain if the failure to raise defects is a widespread or potentially a systematic and/or cultural issue.
 2. Report Tracking Id#: 2023-FEB-9



Safety Finding

1. The Corrective Action section refers to a SAG meeting briefing and the stated confirmation of the adequacy of the current wake turbulence avoidance procedure. The response does not identify the actual failures that led to the incident.
2. Absence of Systematic Approach: The safety reviews/investigations reviewed lack a systematic and structured approach. A standardised framework and methodology were not utilised to ensure comprehensive data collection, analysis, and reporting. The absence of a consistent approach makes it difficult to identify recurring patterns, contributing factors, and systemic deficiencies.
3. Insufficient Corrective Actions: The inadequacy of the safety reviews/investigations is evident in the lack of evidence indicating whether effective corrective actions have been taken. Without proper identification, the implemented corrective actions may only address superficial issues, leaving underlying problems unaddressed. This failure increases the risk of recurring incidents, negatively impacting operational safety.

Criteria:

138.145 Safety management system requirements

The safety management system must include the following matters:

- (b) a safety risk management process, including:
 - (i) hazard identification processes; and
 - (ii) safety risk assessment and mitigation processes;
- (c) a safety assurance system, including details of processes for:
 - (i) safety performance monitoring and measurement;

Issuing inspector: s22

Date issued: 28/06/2023

Due date: 19/07/2023