

# Cockpit Voice Recorder Manual for Aviation Accident Investigations

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#### **APPROVAL PAGE**

The Agência de Aviação Civil (AAC) – the Civil Aviation Authority of Cabo Verde, approves this Cockpit Voice Recorder Manual for Aviation Accident Investigations for the use and guidance of safety inspectors designated as accident and incident investigators in the performance of their duties.

It is emphasized that all matters pertaining to an investigator's duties and responsibilities cannot be covered in this manual. Investigators are expected to use good judgement in matters where specific guidance has not been given. Changes in aviation technology, legislation and within the industry will necessitate changes to requirements.

Comments and recommendations for revision/amendment action to this publication should be forwarded to the Director Flight Safety, Civil Aviation Authority of Cabo Verde:

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#### **FOREWORD**

This manual provides general information to assist the investigator-in-charge, group chairmen, and other investigation team staff who may encounter a cockpit voice recorder during the course of an aviation accident investigation. It is intended to provide guidance on the procedures, laws and standard practice surrounding the cockpit voice recorder and its audio data within an investigation.

The Director Flight Safety will be responsible for keeping this manual updated.

The manual's printing date will be indicated in the centre bottom of each page. While the intent of the manual is to provide guidance for handling a cockpit voice recorder and its data, the manual may not cover all situations, and any questions or concerns may be directed to the Investigator in Charge (IIC) for immediate assistance.

This manual is intended to provide information and guidance to AAC staff who are involved in the cockpit voice recorder portion of an aviation accident investigation.

This manual is not regulatory in nature and does not create any rights in any of the parties to an investigation or any other person. Deviation from the guidance offered in this manual will at times be necessary to meet the specific needs of an investigation.

#### 1 INSVESTIGATOR-IN-CHARGE AUTHORITY

- 1.1. Permission must be obtained from the IIC regarding any exceptions to the cockpit voice recorder (CVR) standard practices or procedures. It is the discretion of the IIC to grant approval for the exceptions.
- 1.2. It is also the discretion of the IIC to adjust a standard practice or procedure, if necessary for a unique circumstance.

#### 2 APPLICABLE RECORDED AUDIO DATA

- 2.1. The laws and policies that govern the procedures regarding CVRs and CVR recordings are generally applicable to any and all audio that is recorded on board an aircraft. Any audio recording that is recovered from an aircraft following an accident or incident is given the same protection and security of a CVR or CVR recording.
- 2.2. On-scene investigation team shall secure any device that records audio, found within the cockpit or cabin, carried by a passenger, or installed in the aircraft. Devices that record audio include, but are not limited to: camcorders, video recorders/cameras, digital cameras, handheld tape recorders, personal digital audio recorders, and flight test equipment. Furthermore, any magnetic tape or digital memory chips found in the wreckage could contain recorded audio and shall be secured by investigation team.
- 2.3. Audio from alternate audio devices shall not be read out or played on scene and the equipment or recording medium shall be secured by the IIC to prevent read-out or damage.
- 2.4. In the event that audio from an alternate audio device is recovered, the investigator- in charge (IIC) shall immediately take all steps to preserve to protect and safeguard such device.

#### **3 CVR RECORDING DISCLOSURE AND ACCESS**

- 3.1. CVR recordings and transcripts contain highly sensitive material, and premature or unauthorized release of information by AAC employees is grounds for disciplinary action. All personnel who obtain information concerning the contents of a CVR recording or written transcript, regardless of reason or source, are bound by Government nondisclosure laws (refer DL X/09, of September 28<sup>th</sup>).
- 3.2. The IIC and the CVR specialist are the only staff automatically authorized to listen to a CVR recording.

- 3.3. The CVR specialist assigned to the accident ordinarily has complete access to the CVR recording, data and information at all times. Other investigation team specialists may be called upon to assist with a CVR recording, when necessary.
- 3.4. Any other Investigation team member staff is required to consult with the IIC and seek approval prior to reviewing a CVR recording or written transcript.
- 3.5. All individuals who listen to a CVR recording are required to sign and log their CVR review or audition into the CVR Audition Log. This is required for each session.
- 3.6. The CVR recording (original or copy) shall not be brought to any other facility for investigative work without the specific approval from the IIC.
- 3.7. The CVR specialist shall keep the IIC apprised of information and activities concerning the CVR or CVR recording.

# 4 CVR RECORDER RECOVERY: FROM ON SCENE TO THE AUDIO LABORATORY

- 4.1. Upon notification of an accident or incident, in which a CVR is installed on the aircraft, the IIC shall attempt to ensure that the CVR circuit breaker is pulled as soon as possible.
- 4.2. The IIC then considers whether the CVR might contain information relevant to the investigation, taking into consideration that the CVR can be 30 minutes or 2 hours in duration. It is possible for the events from an accident or incident to be overwritten when power is applied to the aircraft for an extended time following an event (through its own power or external power). However, some aircraft have an automatic shutoff logic that removes power to the CVR (even if the aircraft remains powered), and possibly allow for the capture of the events. With a CVR part number, the avionics specialist may assist in determining the type of CVR installed.
- 4.3. The CVR shall not be read out or played on scene.
- 4.4. The CVR unit shall not be opened and the recording medium shall not be removed (i.e., the tape or memory module) until it reaches the audio laboratory selected by the IIC.

- 4.5. If the CVR is recovered in water, it shall immediately be packed in water (fresh, if possible) and not be allowed to dry out. Packaging may be accomplished by sealing the recorder (in water) inside a plastic beverage container with silicon adhesive or a similar sealant.
- 4.6. The CVR must be shipped to the audio laboratory indicated by the IIC in a manner that protects it from damage (i.e., inside a cardboard or wooden box, wrapped in either foam or bubble-wrap or in a container filled with foam peanuts).
- 4.7. The IIC shall decide the shipment of the CVR to the selected audio laboratory. .
- 4.8. If necessary, the CVR shall be packaged appropriately. The CVR may be sent to the audio laboratory on board a commercial airplane. It is advisable that the IIC takes the CVR with his luggage. If this is not possible the IIC needs to coordinate with the laboratory staff to collect the CVR at the arriving flight and await for his arrival before the CVR is unpacked.

# 5 CHOICE OF THE CVR READOUT FACILITY AND PARTICIPATION BY THE STATE OF MANUFACTURE (OR DESIGN) AND THE STATE OF THE OPERATOR

- 5.1 One of the immediate items requiring a decision is where to have the flight recorders read out and analysed. It is essential that the flight recorders be read out as early as possible after an accident. Early identification of problem areas can affect the investigation at the accident site where evidence is sometimes transient. Early identification of problem areas may also result in urgent safety recommendations which may be necessary to prevent a similar occurrence.
- 5.2 Not having its own facilities for the playback and analysis of flight recorder information (both voice and data) it will be necessary to request assistance from other States. It is essential, therefore, that the accident investigation unit make timely arrangements to read out the flight recorders at a suitable readout facility.
- 5.3 The IIC may request assistance from any State that, in its opinion, can best serve the investigation. The manufacturer's standard replay equipment and playback software, which is typically used by airlines and maintenance facilities, is not considered adequate for investigation purposes. Special recovery and analysis techniques are usually required if the recorders have been damaged.

- 5.4 Facilities for the read-out of flight recorders should have the following capabilities:
  - a) the ability to disassemble and read out recorders that have sustained substantial damage;
  - b) the ability to play back the original recording/memory module without the need for the use of a manufacturer's copy device or the recorder housing that was involved in the accident or incident;
  - c) the ability to manually analyse the raw binary waveform from digital tape flight data recorders:
  - d) the ability to enhance and filter voice recordings digitally by means of suitable software; and
  - e) the capability to graphically analyse data, to derive additional parameters not explicitly recorded, to validate the data by cross-checking and other analytical methods to determine data accuracy and limitations.
- 5.5 The State of Manufacture (or Design) has airworthiness responsibilities and the expertise normally required to read out and analyse flight recorder information. Since flight recorder information can often reveal airworthiness problems, the State of Manufacture (or Design) must be invited to have a representative present when the flight recorder read-out and analysis are being conducted in a State other than the State of Manufacture (or Design).
- 5.6 The State of the Operator has regulatory responsibilities regarding the flight operation and can provide insights into operational issues which may be specific to the operator. Since flight recorder information can reveal operational problems, the State of the Operator must also be invited to have a representative present when the flight recorder read-out and analysis are being conducted.
- 5.7 The flight data recorder and the cockpit voice recorder should be read out by the same facility, because they contain complementary data which can help validate each recording and aid in determining timing and synchronization.

Flight recorders should not be opened or powered up and original recordings should not be copied (particularly not by high-speed copy devices) prior to the read-out because of the risk of damage to the recordings.

5.8 The facility at which the flight recorders are read out for another State should be given an opportunity to comment on the Final Report in order to ensure that the characteristics of the flight recorder analysis have been taken into account.

- 5.9 The facility at which the flight recorders are read out may require the expertise of the aircraft manufacturer and the operator in order to verify the calibration data and validate the recorded information.
- 5.10 The IIC may leave the original recordings, or a copy of them, with the read-out facility until the investigation is completed, in order to facilitate the timely resolution of additional requests or clarifications, providing that the facility has adequate security procedures to safeguard the recordings.

#### **6 CVR ARRIVAL AT THE SELECTED AUDIO LABORATORY**

- 6.1. The CVR must only be read in presence of the IIC and specialists indicated by him. All accredited representatives must be invited to the initial audition.
- 6.2 The selected audio laboratory is responsible for handling and securing the CVR, the original recording medium, and any audio copies.
- 6.3. If the recorder is damaged, the assigned specialist extracts the recording medium with the use of cutting tools or other special equipment. This is not ordinarily a group activity.
- 6.4. The assigned specialist checks the recording to determine that useable audio information has been recorded (CVRs may be erased or malfunction and contain no useable audio).
- 6.5. Useable audio is defined as any audio that is recorded by the CVR and includes, but is not limited to: the accident events, overwritten post accident discussions, and aircraft noises.
- 6.6. The CVR specialist informs the IIC of the condition of the audio in the recording.
- 6.7. The assigned specialist downloads the original tape or memory from the CVR. The recording is digitally copied in its entirety without alterations or filters. This task is ordinarily accomplished during the initial audition, if practicable.
- 6.8. All non-foreign CVR recordings are digitally archived regardless of whether the recording contains useable audio.

6.9. Although most subsequent audio work is accomplished using the digital copy of the original recording, the original recording may be used.

#### 7 CVR INITIAL AUDITION

- 7.1. If the recording contains useable audio, the initial audition is conducted by the IIC.
- 7.2. The original recording is typically used for the initial audition. A digital copy is made as soon as possible during the initial audition, if practicable.
- 7.3. Any critical information that might assist in the field phase of the investigation is relayed to the IIC and other appropriate on-scene staff, by the audio laboratory.
- 7.4. Any discussion with on-scene staff shall be held over a secure landline telephonenot a portable mobile phone and not routed through any conferencing facility.
- 7.5. The CVR recording shall never be played over the telephone.
- 7.6. If the recording contains audio information pertinent to the investigation, the IIC determines whether it is appropriate to convene a CVR group.
- 7.7. If a CVR group is to be convened, the IIC shall determine which parts of the transcript shall be transcribed (if the entire recording is not going to be transcribed). In general, the entire recording is transcribed in the event of a major investigation.

#### **8 PLANNING THE CVR GROUP MEETING**

- 8.1. Not all CVRs that are sent to audio laboratory result in a CVR group convening. The IIC determines if a group is necessary.
- 8.2. The CVR specialist is the group chairman for the CVR portion of the investigation and shall be included in any correspondence and discussions that pertain to all group chairmen participating in the investigation.
- 8.3. The IIC must coordinate with the CVR group chairman to select a tentative date for a CVR group meeting.
- 8.4. The IIC shall notify the party coordinators that a CVR group is convening.
- 8.5. The IIC must ensure that only parties appropriate to the CVR group are invited: The AAC (must be invited), all accredited representatives and typically, the manufacturer, pilot union, and owner/operator. Flight crew cannot participate as group members.

- 8.6. Party representatives that can provide a technical contribution may be assigned to the CVR group. The CVR group shall include at least one pilot typed or current in the accident aircraft model. Typically other individuals seated on the CVR group include those familiar with the crew's voices, and those familiar with company procedures. The party coordinator is not automatically qualified to be a CVR group member.
- 8.7. Ordinarily, only one representative per party is seated on the CVR group. Additional party representatives may be seated, at the discretion of the IIC.
- 8.8. Transcribing a 30-minute recording may be accomplished in one day, but typically continues late into a second day or more. The IIC finalizes a meeting time and date with the group members and reconfirms with the CVR group chairman.
- 8.9. The IIC shall advise the party representatives attending the CVR group meeting that once the CVR group meeting has started the group members are not allowed to leave the group until the transcript of recorded events has been completed and the CVR group chairman authorizes the group to be dismissed.
- 8.10. The IIC must forward the names of the CVR group members to the CVR group chairman prior to the CVR group meeting day. Only authorized individuals are permitted to participate in the group. Authorized individuals are those individuals approved by the IIC.

#### 9 THE CVR GROUP MEETING

- 9.1. The CVR group chairman's primary role is to provide technical expertise in handling the audio recording and audio equipment. During a group meeting, the CVR group chairman is responsible for facilitating and focusing the group members in extracting factual audio data. The group chairman must exercise extreme caution in offering opinions or speculation so as not to bias the group members and compromise the group meeting.
- 9.2. The CVR group chairman explains the CVR disclosure laws and policies. In particular, CVR group members are prohibited from releasing CVR information to the public.

However, the IIC may decide to publicly release information regarding CVR activity.

- 9.3. CVR disclosure policy does not prohibit a party from implementing safety-of-flight related adjustments within their organization, as a result of their participation in a CVR group. However, the IIC shall require notification of the subject matter prior to any disclosure of CVR information to the group member's organization. It is the CVR group member's responsibility to notify the CVR group chairman prior to disclosure.
- Disclosure of information to a group member's respective organization shall include only information that is directly related to safety—at no time shall remarks, comments, or conversations be disclosed to any person, party, or organization.
- 9.4. The group members must sign the CVR Audition Log, CVR Non-Disclosure Agreement, and Statement of Party Representatives to Investigation (see attached)
- 9.5. Quotes and statements from the CVR recording are prohibited from being discussed with anyone—except the CVR group members during the CVR group meeting.
- 9.6. Group members on a break shall not discuss the CVR or its contents while away from the audio laboratory.
- 9.7. At the beginning of the CVR group meeting, before starting the transcription process, the CVR group chairman plays the recording in its entirety without stopping.
- 9.8. The CVR group is a tool to help in the investigation. Only the facts (i.e., words and sounds) are to be ascertained by the group—no analysis or interpretation shall be introduced into the transcript.
- 9.9. Any notes taken during the meeting are collected by the CVR group chairman at the end of the group meeting and destroyed. No notes shall be taken out of the CVR listening room.
- 9.10. During group activities, group members are prohibited from bringing electronic devices into the CVR Audio Laboratory unless explicitly authorized by the IIC.
- 9.11. The CVR group chairman, in coordination with the IIC, has the right to excuse any member who is disruptive to the process or is in violation of the CVR nondisclosure policies and laws.
- 9.12. The CVR group chairman shall keep the IIC apprised of the CVR group activities.

- 9.13. The CVR group may reconvene at a later date at the request of the CVR group chairman. The decision to reconvene the group must be authorized by the IIC.
- 9.14. If the CVR group reconvenes, all members must be invited to return, but may decline the invitation. Except in extenuating circumstances, substitutes are not allowed during a reconvening of a CVR group. Approval for a substitute must be obtained in advance from the IIC.
- 9.15. The individual group members may only listen to the CVR recording in a group setting.
- 9.16. Once a CVR group meeting has started, the group members are not allowed to leave the group until the transcript of recorded events has been completed and the CVR group chairman authorizes the group to be dismissed.

#### 10 CVR TRANSCRIPTION

- 10.1. The CVR group commences transcription at either the beginning of the recording or at the point decided upon by the IIC.
- 10.2. The transcript produced by a CVR group is a factual record of audio events. In discerning an audio event, if a disagreement arises among the group members, the differing observations may be documented in the transcript. Inclusion of differing observations within the final transcript is the discretion of the IIC.
- 10.3. Non-verbal audio and other CVR noise events that are distinctly identifiable are noted as "sound similar to..." within the transcript. Typical noise events identified in a transcript include: engine sounds, crew seat movement, windshield wiper motors, and aircraft aural warnings. Latched/detent handle movement, such as flaps, slats and gear handles, are sometimes generically identified as a "sound similar to latched/detent handle movement." Care shall be exercised when associating generic noises, such as clicks, clacks, and thumps, with a specific action or event. In general, any noise, or series of noises, associated with a specific event or action must be distinctive and readily identifiable by itself out of context from the CVR recording.
- 10.4. It is possible for an audio event to be recorded on several channels by several microphone sources. The sound source identified in the transcript is the source with the clearest audio.
- 10.5. All conversation recorded (within the portions of the recording specified by the

IIC prior to the group meeting) is transcribed. The CVR group does not decide the relevance of crew conversation—the IIC evaluates the transcript for any no pertinent conversation.

- 10.6. A coversheet is attached to the preliminary transcript (see attached: *Coversheet for CVR Factual Report/Transcript and Review Log* or *Release of CVR Factual Report with Transcript*).
- 10.7. The transcript is punctuated and formatted to standard transcript style.
- 10.8. The investigative staff must obtain approval from the IIC prior to reviewing a written transcript of a CVR recording.
- 10.9. Aside from minor editorial corrections by the CVR specialist, any significant changes to the transcript require group consultation and consensus via telephone or through reconvening the CVR group.
- 10.10. The transcript may be correlated from the relative time of the recording to local/UTC time of the accident or any other appropriate correlation data point as determined by the CVR specialist. If applicable, the timing and correlation is coordinated with the FDR readout team.
- 10.11. Timing and correlation is not a group activity.
- 10.12. If ATC, FDR or radar data are unavailable or do not provide an appropriate correlation point, the IIC shall supply the CVR specialist with a time that may be correlated to a CVR event, such as accident time.

#### 11 THE CVR FACTUAL REPORT

- 11.1. If a CVR group is determined to be unnecessary, the CVR specialist writes a factual report stating that a group was not convened. Additional information may be included in the factual report such as a summary of the recording contents or timing of select audio events.
- 11.2. The CVR factual report typically contains information about the CVR type, operation, damage, recording extraction methods, audio quality, and a summary of transcribed audio events.

- 11.3. If a CVR group convenes to prepare a transcript, the transcript is attached to the CVR factual report.
- 11.4. The IIC reviews the factual report and/or transcript. Any non-pertinent or expletive remarks or conversations may be edited or deleted from the transcript as deemed necessary by the IIC, before public release.
- 11.5. All notes, preliminary transcript drafts, and copies are destroyed when the content of the CVR transcript has been finalized.

#### 12 CVR REVIEW AND OFFICIAL USE OF CVR DATA

- 12.1. All investigation team staff and Members who obtain information concerning the contents of a CVR recording or written transcript, regardless of reason or source, are bound by nondisclosure laws.
- 12.2. The IIC decides about public release, of a CVR transcript.
- 12.3. All investigation team members are required to have approval from the IIC prior to reviewing a CVR recording, transcript, or notes.
- 12.4. All investigation team staff are required to sign the CVR Audition Log before each audition.
- 12.5. Approval to listen to the recording during subsequent review sessions is covered by the initial approval.
- 12.6. The IIC and other authorized staff may review the transcript, but at no time may any of the information from the CVR recording, notes, or written transcript be shared or distributed (verbally or in writing) to the party members or unauthorized staff until the public release of the CVR factual report with transcript.
- 12.7. Notes may not be taken from the CVR listening room without authorization from the IIC. Notes may be secured by the CVR specialist or destroyed.
- 12.8. To the extent possible, the transcript shall not leave the CVR listening room prior to public release, except in the following instances:
- 12.8.1. With approval from the IIC and CVR group chairman, authorized staff may recreate portions of the CVR recording or transcript, in their report, as necessary for the investigation.

- 12.8.2. Staff must obtain explicit approval from the IIC to take CVR notes or portions of the transcript outside of the CVR listening room. At all times, the authorized staff must ensure the security of CVR-related portions of their reports and CVR notes.
- When finished with any CVR notes, the notes shall be returned to the CVR group chairman for storage or destruction.
- 12.8.3. No unauthorized copies of the CVR factual report or CVR transcript shall be made.
- 12.9. CVR-related sections of other group chairmen reports may not be distributed to any party coordinators, group members, unauthorized staff, or the general public prior to the public release of the CVR factual report with transcript.

#### 13 PUBLIC RELEASE OF THE CVR FACTUAL REPORT AND TRANSCRIPT

- 13.1. After the report review process, the IIC maintains the security of the factual report and transcript. The release of the factual report with transcript to the public is decided by the IIC.
- 13.2. For the case of a CVR factual report without an attached transcript, the factual report may be released to the IIC after the report review process.
- 13.3. The CVR factual report with transcript may be sent to the party coordinators at the time of public release.

#### 14 FLIGHT CREW AND OTHER CVR REVIEW

- 14.1. The IIC is responsible for notifying the surviving flight crew of the opportunity to listen to the recording and review the CVR transcript. The crew review is a courtesy extended to the crew, not a requirement.
- 14.2. A CVR specialist supervises the crew's review of the CVR recording and transcript.
- 14.3. The crew is not allowed to participate as a member of the CVR group activities.
- 14.4. After the crew's review, additions or changes shall not be made to the CVR transcript—changes or comments from the crew are noted in the CVR factual report.

- 14.5. A CVR group member may be permitted to accompany a crewmember during the CVR review, if requested by the crewmember.
- 14.6. No copy of the transcript or notes shall leave the CVR listening room.
- 14.7. Any notes taken during the CVR review are collected by the CVR specialist and destroyed.
- 14.8. All individuals who review a CVR recording are required to sign the CVR Audition Log.
- 14.9. At the crewmember's discretion, each crewmember may listen separately or together.
- 14.10. All other individuals provided the opportunity to listen to a CVR recording must obtain explicit approval from the IIC.
- 14.11. Any individual who reviews a CVR recording is bound by CVR non disclosure laws.

#### 15 RELEASE OF THE RECORDER AND AUDIO RECORDING

- 15.1. The IIC shall supply the CVR specialist with the recorder's return organization and address. Ordinarily with minor accidents and incidents, the owner/operator at the time of the accident or incident is the rightful return organization. However, there are instances when the rightful return organization is less apparent, such as when the insurance company has control of the wreckage, or there are fractional owners, or if the aircraft is leased. If there is uncertainty regarding the proper return organization, the IIC shall contact the Legal Counsel, who can resolve any issues regarding who shall receive the CVR and original CVR recording.
- 15.2. Because of the sensitivity of CVR recordings, it is possible that the return organization for the CVR unit (the recorder box) is not the same organization that shall receive the original CVR recording medium.
- 15.3. For tape-based CVRs, the CVR unit—minus the recording original tape—may be returned to the owner (or authorized recipient) as soon as the CVR specialist determines that there are no issues related to its operation. The original tape recording is returned to the authorized recipient only after the investigation is complete and the transcript has been released to the public.

- 15.4. Typically with a solid-state recorder and recording, the actual recorder and its memory cannot be easily separated. Therefore, the entire CVR is considered "The Original Recording" and appropriate security measures and protection must be observed.
- 15.5. For solid-state recorders, the CVR, with its solid-state memory, shall not be released until the investigation is completed or otherwise authorized by the IIC on a case-by-case basis.
- 15.6. Prior to returning an original CVR recording medium, the CVR specialist must obtain specific permission from the IIC.
- 15.7. Copies of the CVR recording shall not be released to the owner, or any other party without the approval of the IIC.

#### 16 INVESTIGATION WITH FOREIGN REPRESENTATIVES

- 16.1. When an investigation involves a foreign operator/manufacturer, procedures and policies of this handbook will apply, in consultation with the foreign government's Accredited Representative. Coordination between the governments is managed by the IIC and the foreign government's Accredited Representative.
- 16.2. If the recording contains useable audio, the initial audition is conducted by the IIC.

The foreign government's Accredited Representative and their designees may be provided the opportunity to review the recording prior to the CVR group meeting.

16.3. Participants from the foreign government and their technical advisors shall be clearly identified to the CVR specialist to avoid unauthorized access to the recording or written transcript.

# ATTACHMENT A: STATEMENT OF PARTY REPRESENTATIVES TO AN INVESTIGATION

# STATEMENT OF PARTY REPRESENTATIVES TO AAC INVESTIGATION

Aircraft Identification:	
Accident Number	
Registration Number	
Make and Model	
Location	
Date	

The undersigned hereby acknowledge that they are participating in the above-referenced aircraft accident field investigation (including any component tests and teardowns or simulator testing) on behalf of the party indicated adjacent to their name, for the purpose of providing technical assistance to the investigation unit.

The undersigned further acknowledge that they have read CV-CAR 13.E.245 and agree to abide by provisions of this regulation.

It is understood that a party representative to an investigation may not be a person who also represents claimants or insurers. The placement of a signature hereon constitutes a representation that participation in this investigation is not on behalf of either claimants or insurers and that, while any information obtained may ultimately be used in litigation, participation is not for the purposes of preparing for litigation.

By placing their signatures here on all participants agree that they will neither assert nor permit to be asserted on their behalf, any privilege in litigation, with respect to information or documents obtained during the course of and as a result of participation in this investigation as described above.

It is understood, however, that this form is not intended to prevent the undersigned from participating in litigation arising out of the accident referred to above or to require disclosure of the undersigned's communications with counsel.

SIGNATURE	NAME (Printed)	<u>PARTY</u>	<u>DATE</u>
		- <del> </del>	

ACCIDENT ID:

#### ATTACHMENT B: CVR NON-DISCLOSURE AGREEMENT

# **CVR NONDISCLOSURE AGREEMENT**

Each of the undersigned acknowledges that he/she has read CV-CAR 13.E.245 and agrees to comply with those rules.							
Each undersigned further agrees not to disclose or cause to be disclosed any information from the cockpit voice recorder (CVR) recording or any transcript thereof except as expressly authorized by the AAC. Approval from the Investigator-In-Charge <u>must</u> be obtained before disclosure of any information. Disclosure of information to his/her respective organization shall include only that information which is directly related to safety and <u>at no time shall non-pertinent remarks</u> , comments, or <u>conversations</u> be disclosed to any person, party, or <u>organization</u> .							
unauthorized release of	By placing his/her signature hereon, the undersigned acknowledges that the unauthorized release of CVR information shall be grounds for immediate dismissal from the investigation, and may result in further legal sanction.						
I HAVE READ	AND UNDERSTAND THE AB	OVE CONDITION	<u>S.</u>				
SIGNATURE_	NATURE NAME (PRINTED) PARTY DATE						

#### Parties to the investigation.

- (a) All Investigations, regardless of mode.
- (1) The investigator-in-charge designates parties to participate in the investigation. Parties shall be limited to those persons, government agencies, companies, and associations whose employees, functions, activities, or products were involved in the accident or incident and who can provide suitable qualified technical personnel actively to assist in the investigation.
- (2) Participants in the investigation shall be responsive to the direction of the IIC and may lose party status if they do not comply with their assigned duties and activity proscriptions or instructions, or if they conduct themselves in a manner prejudicial to the investigation.
- (3) No party to the investigation shall be represented in any aspect of the investigation by any person who also represents claimants or insurers. No party representative may occupy a legal position. Failure to comply with these provisions may result in sanctions, including loss of status as a party.
- (b) In addition to compliance with the provision of paragraph (a) of this section, and to assist in ensuring complete understanding of the requirements and limitations of party status, all party representatives in aviation investigations shall sign "Statement of Party Representatives to an Investigation" immediately upon attaining party representative status.

Failure timely to sign the statement may result in sanctions, including loss of status as a party.

#### Flow and dissemination of accident or incident information.

- (a) Release of information during the field investigation, particularly at the accident scene, shall be limited to factual developments, and shall be made only through the investigator-in-charge.
- (b) All information concerning the accident or incident obtained by any person or organization participating in the investigation shall be passed to the IIC through appropriate channels before being provided to any individual outside the investigation. Parties to the investigation may relay to their respective organizations information necessary for purposes of prevention or remedial action. However, no information concerning the accident or incident may be released to any person not a party representative to the investigation (including non-party representative employees of the party organization) before initial release by the Accident Investigation Authority without prior consultation and approval of the IIC.

# ATTACHMENT C: COVERSHEET FOR CVR FACTUAL REPORT/TRANSCRIPT AND REVIEW LOG

## **CVR Factual and Transcript**

# **DO NOT LEAVE UNATTENDED**

RETURN TO: CVR Group Chairman:				OFFI	CE:	PH: x		
Accide	nt Numbe	r:	IIC: _					
CVR DR	CVR DRAFT REPORT/TRANSCRIPT REVIEW TRACKING: Hours to Complete							
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Prior to applica		elease of this C	VR repo	rt/transcr	ipt, the fo	llowing	procedures a	ire
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# ATTACHMENT D: RELEASE OF CVR FACTUAL REPORT WITH TRANSCRIPT.

	·	<u>Memorandum</u>		
Date:				
То:				
From:	IIC			
Subject:	CVR Factual Report/T	ranscript Release		
AAC Number:				
IIC:				
Prior to publicapplicable:	c release of this CV	R report/transcript,	the following	procedures are
THIS DOCUME	NT IS FOR OFFICIAL U	ISE ONLY. DUPLICAT	TION IS PROHI	BITED.
ACCESS TO TH	HIS TRANSCRIPT SHAL	L BE AUTHORIZED (	ONLY BY IIC.	
	NT IS NOT TO BE LEFT PONSIBLE FOR KEEPI			
THIS DOCUME	NT IS NOT TO BE SHA	RED OUTSIDE INVES	STIGATION TEA	M STAFF.
Print Name	Signature 		UT Date	/Time IN