5 ACCIDENT INVESTIGATION

5.1 ACCIDENT/INCIDENT INVESTIGATION PROCEDURE

GACAR part 4.19

5.1.1 Accidents/Serious Incidents in A Foreign Country Involving Company Aircraft

Serious incident occurring to civil registered aircraft in a foreign country are investigated in accordance with provision of ICAO Annexure13.

Process: The appropriate method of contacting a foreign National Authority or ATC authority is via the AIB/GACA. All the facts known to Riyadh Air must be set down in a full report and forwarded via AIB/GACA to the foreign National Authority for onward forwarding. This method is known to take time, and results are not always forthcoming from the foreign authority.

The safety report of the incident shall be forwarded from the Safety Office to the National Authority or ATC authority, and a copy shall be sent to the AIB/GACA.

5.1.2 Internal Safety Accident/Incident Investigation

The objective of safety investigations is the prevention of safety occurrences (incidents & serious incidents) via the identification of systemic root causes and not individuals and also the enhancement of safety performance via sharing of the lessons learned with the concerned stakeholders, in brief, the objective of the process described in this section are summarized below:

1. Ensure that safety occurrences are independently & objectively investigated, without the apportion of blame or liability.
2. Provide the scope of applicability of safety investigations and a distinction between when an investigation is (and is not) necessary.
3. The proactive detection of safety hazards and system deficiencies with the purpose of providing safety recommendations and reactive corrective actions.

5.1.2.1 Investigation Procedure

The figure below provides an overview of the investigations flow. The following section will provide details on the procedures.

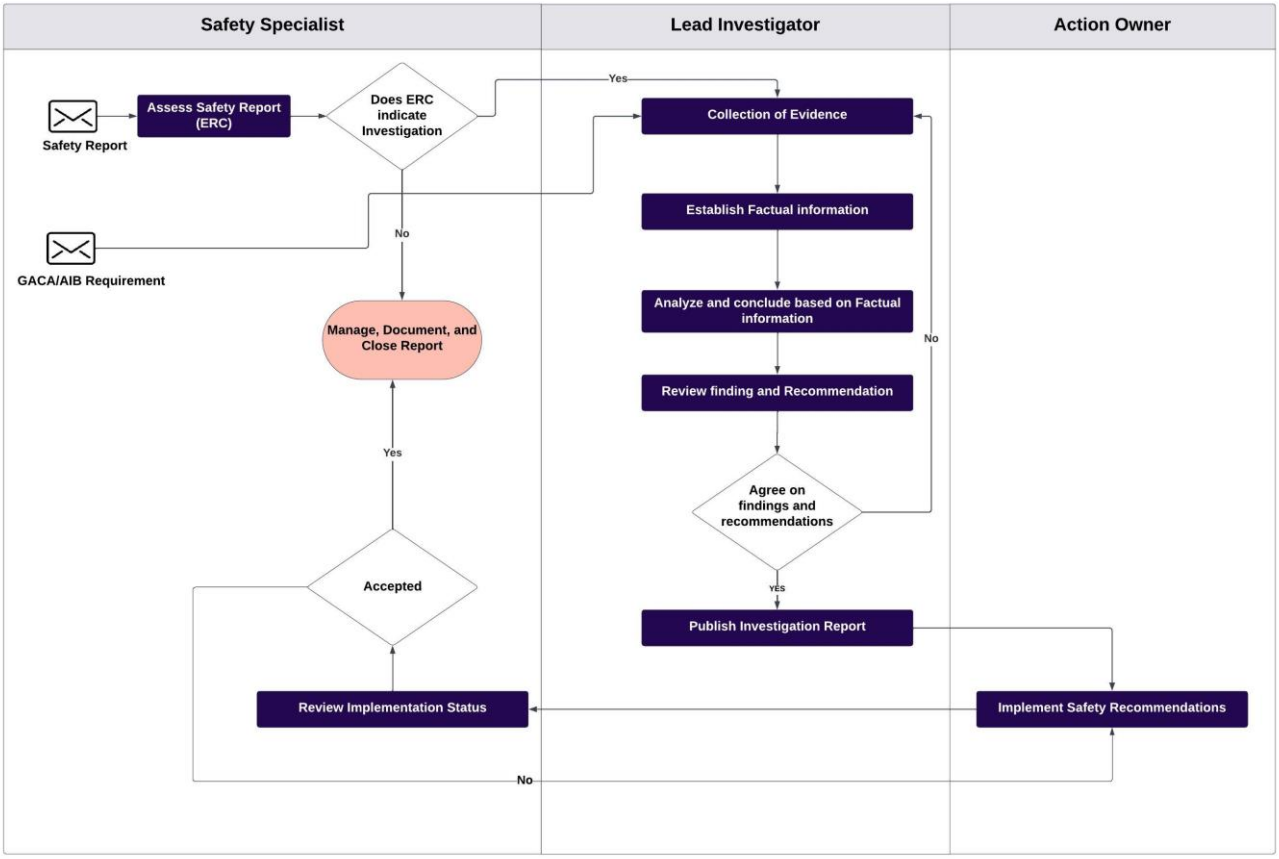

Figure 14 - Investigation Flow

5.1.2.1.1 Decision to Investigate

The purpose of this activity is to assess if the occurrence requires further investigation. The decision to investigate is based on the assessment of the potential risk to human life and damage to equipment, which is the responsibility of the assigned safety reporting specialist. The safety specialist may seek guidance from Event Risk Classification (ERC) process with the approval of VPCSSE to categorize the reported event. ERC defined in the section below shall be used to conclude whether safety investigation is required or not.

The list below constitutes when the safety investigation process may be initiated:

1. Investigation to be initiated based on received safety reports via Riyadh Air's reporting systems.
2. Investigations to be initiated as required by GACA and/or AIB.
3. Investigation to be initiated as directed by Accountable Executive

Note:

For point 2 and 3 ERC is not required.

5.1.2.1.2 Event Risk Classification

When the potential risk to life or damage to equipment is not apparent, the safety specialist shall use the Event Risk Classification (ERC) as a guiding principle to confirm whether an occurrence requires investigation. The event risk classification should take place preferably within 12 hours of the occurrence.

The ERC methodology is based on "event-based risk", which is an assessment of the risk associated with that one event and not the risk associated with all similar events. It should be kept in mind that the ERC may get revised during the investigation. ERC is a 4x4 matrix where red events require investigation by GACA/AIB, yellow ones to be investigated with VPCSSE approval, and green events indicate that no investigation is required. See figure below for ERC risk matrix. ERC application is a 4x4 matrix, where risk estimation corresponds to the area of intersection of the two Questions. The SRC value is based on two questions:

Question 2

What was the effectiveness of the remaining barriers between this event and the most credible accident scenario?

Effective	Limited	Minimal	Not effective
50	102	502	2500
10	21	101	500
2	4	20	100
1			

Question 1

If this event had escalated into an accident outcome, what would have been the most credible outcome?

		Typical accident scenarios
Catastrophic Accident	Loss of aircraft or multiple fatalities (3 or more)	Loss of control, mid air collision, uncontrollable fire on board, explosions, total structural failure of the aircraft, collision with terrain
Major Accident	1 or 2 fatalities, multiple serious injuries, major damage to the aircraft	High speed taxiway collision, major turbulence injuries
Minor Injuries or damage	Minor injuries, minor damage to aircraft	Pushback accident, minor weather damage
No accident outcome	No potential damage or injury could occur	Any event which could not escalate into an accident, even if it may have operational consequences (e.g. diversion, delay, individual sickness)

Figure 15 - ERC Guide

Question 1: "if this event had escalated into an accident, what would have been the most credible accident outcome?"

1. Think, judge & assess the event in a holistic manner, considering all known factors, the context, and the environment. In your mind, try to escalate the event into an accident outcome.
2. If it was virtually impossible that the event could have escalated into an accident outcome, then you are at the bottom row.
3. If you can imagine credible accident scenarios (even if improbable ones!), then consider the most credible scenario and judge its typical consequence and pick the corresponding row in the matrix. The listed "typical accident scenarios" on the right of the matrix can be of help.
4. The question is looking to identify the accident outcome that is of most concern when this type of incident occurs. This question is not asking for the most probable outcome, as that is usually "nothing" and therefore ignores any risk that the event carries, but neither is it necessarily looking for the worst possible outcome as the worst-case scenario would often not be the most obvious accident to expect.

Question 2: "what was the effectiveness of the remaining barriers between this event and the most credible accident outcome?"

1. To access the remaining "safety margin", consider robustness of the remaining barriers between this event and the accident scenario in question 1.
2. Barriers that already failed are ignored. Don't refer to "what stopped the accident sequence" refer to the correct concept of "what was left". The second question only considers remaining barriers – to estimate the probability of further escalation into the most credible accident outcome (of question 1).
3. Select "not effective" column, if the only thing separating the event from an accident was pure luck or exceptional skill, which is not trained nor required.
4. Select "minimal" column, if some barrier(s) were still in place but their total effectiveness was "minimal" – e.g. This could be a GPWS warning just before an imminent CFIT.
5. Select "limited" column if the effectiveness of the barrier(s) was "limited". Typically, this is an abnormal situation, more demanding to manage, but with still a considerable remaining safety margin – e.g. A moderate error in load sheet or loading vs. Slight rotation problems at take-off.
6. Select the "effective" column, if the safety margin was "effective", typically consisting of several good barriers – e.g., Passenger smoking in the lavatory versus in-flight fire accident.
7. The available information about the event at this stage may be limited and the ERC is performed based on this limited information.

NOTE:

Above procedure is referred from ARMS methodology for Operational Risk Assessment in Aviation which was developed by ICAO ARMS working Group 2007-2010.

5.1.2.1.3 Lead Investigator Responsibilities

This section describes the process to be followed by the Lead Investigator and their associated procedures. For each process below there will be a description of the activity and basic requirements for its completion.

5.1.2.1.3.1 Evidence Collection

Safety investigations are evidence based. VPCSSE approval is required for carrying out investigations of accidents, incident, and/or safety, security, environment violation . As such, evidence related to the incident shall be made available to the lead investigator gathered by the supervisory staff of the related department. The lead investigator must list and communicate the needed evidence clearly. Although, the evidence needed will differ depending on incident, the items below provide general guidance:

1. Witness statements & interviews.
2. Site inspection and photography.
3. Gathering, recording and preservation of physical evidence.
4. Licenses. medical certifications & training records.
5. Flight documents (flight plan, load-sheets, meteorological reports, etc...).
6. Technical documents (ELB entries, workorders, Airworthiness Directives (AD), etc..).
7. Manuals & Bulletins.
8. FDR & CFR recordings.

9. CCTV recordings.
10. Identification of missing information
11. Previous/ similar incidents.

It is important to note that certain evidence fall under the "perishable" category which are at risk of being overridden, damaged, or lost if not collected in a timely manner. This includes (but not limited to) FDR/CVR/CCTV which run the risk of being overridden, and the statements of the witnesses involved. As such, witness interviews should be conducted as soon as reasonably possible to ensure the accuracy of the statements given. The witness's line manager shall make them available and relieve them of normal day-to-day duties as appropriate to attend the interview. Witnesses must be briefed on the overall investigation procedure and allowed the opportunity to ask the interviewees/lead investigator questions regarding the process. In the interest of protecting the interviewee, ensuring a non-punitive investigation, and maintaining the objectivity of the SMS activity, the lead investigator (and/or the VPCSSE) have the right to invite or exclude observers from the interview including related postholders.

Post-evidence collection, the lead investigator must assess the evidence to ensure that it is complete and there are no missing sources. In the event that information is missing or incomplete, the lead investigator shall request evidence from the head of said department, related postholder, and or the VPCSSE.

All evidence must be properly stored/documented to ensure easy retrieval and access, only by the VPCSSE or by Safety and investigation team.

5.1.2.1.3.2 Establish Factual Information

As per ICAO Doc 9756, a fact is information which has been observed and verified. As such, the purpose of this activity is the direct verification of the collected evidence. The factual information part of the subsequent investigation report should contain a description of all the events and circumstances directly related to the incident under investigation. The factual information should include a timeline or sequence of events (when practical) to give a description of the flight and the pertinent events as they occurred in a chronological order. The list below provides items which must be considered in establishing the timeline:

1. The sequence should begin as far back in time as is necessary to include the significant events which preceded the accident.
2. The timeline/sequence of events should be correlated to local time or UTC if the flight involved more than one time zone.
3. The timeline/sequence of events should be displayed in manner that properly addresses the complexity of the event yet easy to comprehend.
4. Diagrams should have a professional appearance and depict accurate information.
5. All included events must be directly verified by the lead investigator and the investigation team.
6. Evidence which facilitated the reconstruction of the sequence of events/timeline, such as witness statements, CVR/DFDR, transcripts, physical evidence and CCTV recordings should be stated.

5.1.2.1.3.3 Analyze and conclude based on Factual Information

The analysis portion of the investigation should establish the significance of the relevant facts and circumstances which were presented in the factual information in order to determine which events contributed to the accident. The purpose of the analysis is to provide a logical link between the factual information and the conclusions that provide the answer to why the accident occurred (root cause identification). However, it is important to note that maintaining investigator objectivity, is of the highest importance. The list below describes typical investigation analysis traps which must be considered in the analysis process:

1. Outcome & Hindsight Bias: Severely judging the actions/inactions which may have contributed to the incident, due to knowledge of the adverse outcome from a retrospective viewpoint.
2. Counterfactual Reasoning: discussing what people could or should have done to avoid the incident but not explaining what they did and why they did it.
3. Cherry-Picking: identifying an over-arching condition in hindsight ("they were in a hurry"), based on the outcome, and tracing back through the sequence of events to prove it right.

Maintaining the objectivity and integrity of the investigation analysis is paramount. The list below provides items which must be considered to reduce the effects of the previously mentioned investigation traps:

1. The investigation must utilize an investigation analysis method/model (when practical) to limit the influence of investigator bias during analysis. A brief description of the analysis method/model must be included in the final investigation report.
2. The investigation analysis method/model should address both human and system contributions to the incident. Furthermore, all preventive/recovery controls that were either successful in stopping the occurrence or those that failed as intended should be discussed.
3. The analysis must take into consideration the Local Rationality Principle (LRP). People's actions and assessments must make sense when viewed from their position inside the situation given their knowledge, objectives, and limited resources.
4. The analysis reasoning must be logical and may lead to the formulation of hypotheses, which are then discussed and tested against the evidence.
5. Any hypothesis which is not supported by evidence (an expression of opinion), should be clearly indicated. The validity of a hypothesis should be stated, and reference should be made to the supporting evidence.
6. Avoid words or phrases that have connotations of blame. Nevertheless, the analysis should not refrain from discussing a cause merely because blame or liability might be inferred from the statement of that cause.
7. Contradictory evidence must be dealt with openly and effectively.

5.1.2.1.3.4 Review Findings and Recommendations

The lead investigator must review the conclusions drawn from the analysis prior to publishing the final report. This includes the findings and/or the root causes and/or contributing factors established in the investigation. Findings are statements of all significant conditions, events, or circumstances in the accident sequence. The findings are significant steps in the accident sequence, but they are not always causal or indicative of deficiencies. On the other hand, causes are those events which alone, or in combination with others, resulted

in the incident. Both findings and causes must be supported by, and directly related to, the factual information and the analysis. No new factual information should be introduced in the findings. Additionally, the findings should be listed in a logical sequence, usually in a chronological order.

5.1.2.1.4 VP Corporate Safety, Security & Environment Review

At this point of the investigation, the factual information, analysis, and conclusions shall be consolidated in the final investigation report and sent to the VPCSSE for approval. In the event the VPCSSE opposes certain investigation findings, the lead investigator shall return and review/collect evidence and make the necessary adjustments and resend for VPCSSE approval.

5.1.2.1.5 Draft Report Review

After the investigation findings have been reviewed the draft report shall be shared with all concerned division/departments, inviting their significant and substantiated comments. All comments shall be provided in written format within (5) business days. Divisions/Departments and individuals shall not circulate, release, or give access to a draft report without the express consent of VPCSSE. If comments are received within (5) business days, the lead investigator shall return and review/collect evidence which may support or oppose comments, and either amend the draft report to include the substance of the comments received or, append the comments (on which no agreement could be reached) to the final report and seek VPCSSE approval.

5.1.2.1.6 Publish Final Investigation Report

The purpose of this activity is the finalization and publication of the final investigation report. The fulfilment of this activity is based on the following requirements:

1. Investigation Report Signatures.
2. Distribution of Final Investigation Report to Stakeholders.
3. Publication of Final Investigation Report via IQSMS.

5.1.2.1.7 Authorization of Investigation Report

After the completion of the draft report review, the final investigation report shall be signed by the Lead Investigator and assigned investigation team. The report will then be approved by the VPCSSE within (5) business days.

5.1.2.1.8 Distribution of Final Investigation Report to Stakeholders

VPCSSE approval is required for distributing the final investigation report by the Lead Investigator and/or via e-mail (at a minimum) to the AE, post holders, and the heads of the relevant divisions/departments.

In the instance that the investigation was required by GACA and/or AIB, the VPCSSE will share the final investigation report with AIB and/or GACA via a communication channel acceptable to the respective authority.

5.1.2.1.9 Discontinuation of Safety Investigation

At the direction of VPCSSE, a safety investigation shall be discontinued when instructed by GACA, and/or AIB. All evidence and analysis shall be preserved and handed over to the competent authority conducting the investigation. Riyadh Air shall only take part as a witness and assist when invited by the authority.

An internal decision to discontinue the investigation will be triggered if the following aspects are found:

1. During analysis of the factual information, it becomes apparent to the lead investigator that the investigation will yield limited safety benefit, he may cease the investigation with VPCSSE approval.
2. Early indication of sabotage/criminal activity, the investigation would be discontinued as the causal factors would be beyond the scope of this section.

5.1.2.1.10 Follow-up of Safety Recommendations

This section describes the process relating to the Safety Specialist and Action Owner and their associated procedures. For each process below there will be a description of the activity and basic requirements for its completion. Investigation safety recommendations will also be tracked/monitored via IQSMS, and the SAG.

5.1.2.1.11 Closure of Safety Recommendations

The tracking of all recommendations shall be assigned to the Safety Specialist. The Safety Specialist shall monitor all recommendations for implementation with the Action Owners and brief the safety office on the closure of the investigation recommendations. Overall, the IQSMS investigation module provides the following features to assist both the Safety Specialist & Action Owner.

1. All Action Owners will receive an automated notification from the IQSMS investigation module detailing the assigned recommendations and expected completion date.
2. The Safety Specialist will receive an automated notification from the IQSMS investigation module of investigation completion. Furthermore, the Safety Specialist will receive automated notifications once an Action Owner has submitted evidence of recommendation implementation.

Once the recommendation has been satisfactorily closed, the Safety Specialist can close the original safety report via the IQSMS reporting module.

5.1.2.1.12 Investigation Team

Depending upon the nature of occurrence, the VPCSSE or his deputy shall approve the investigation team which may include:

1. Flight Safety Specialist
2. Cabin Safety Specialist
3. Technical Safety Specialist
4. Ground Safety Specialist

5. Part Time Safety Investigator

Any other member or SME can be chosen as the co-opted member from the operational departments to facilitate the investigation.

5.1.2.2 Investigation Report

5.1.2.2.1 Report Format

The Investigation Report will be based on ICAO Annex 13 format.

Factual Information

1. History of Flight. A brief narrative giving the following:
   a. Flight number, type of operation, last point of departure, time of departure (local time or UTC), point of intended landing.
   b. Flight preparation, description of the flight and events leading to the accident, including reconstruction of a significant portion of the flight path, if appropriate.
   c. Location (latitude, longitude, elevation), time of the accident (local time or UTC), whether day or night.
2. Injuries to Persons. Completion of the following (in numbers):
   a. Injuries to Crew, Passengers, and Others
   b. Fatal
   c. Serious/Minor/None

Note:

Fatal injuries include all deaths determined to be a direct result of injuries sustained in the accident. Serious injury is defined in Chapter 1 of ICAO Annex 13.

3. Damage to aircraft. Brief statement of the damage sustained by aircraft in the accident (destroyed, substantially damaged, slightly damaged, no damage).
4. Other damage. Brief description of damage sustained by objects other than the aircraft.
5. Personnel information.
   a. Pertinent information concerning each of the flight crew members including age, validity of licenses, ratings, mandatory checks, flying experience (Total and on Type) and relevant information on duty time.
   b. Brief statement of qualifications and experience of other crew members.
   c. Pertinent information regarding other personnel, such as air traffic services, maintenance, etc., when relevant.
6. Aircraft information.
   a. Brief statement on airworthiness and maintenance of the aircraft (indication of deficiencies known prior to and during the flight to be included, if having any bearing on the accident).

b. Brief statement on performance, if relevant, and whether the mass and center of gravity were within the prescribed limits during the phase of operation related to the accident. (If not, and if of any bearing on the accident give details).

c. Type of fuel used.

7. Meteorological information:

a. Brief statement on the meteorological conditions appropriate to the circumstances including both forecast and actual conditions, and the availability of meteorological information to the crew.

b. Natural light conditions at the time of the accident (sunlight, moonlight, twilight, etc.).

8. Aids to Navigation. Pertinent information on navigation aids available, including landing aids such as ILS, MLS, NDB, PAR, VOR, visual ground aids, etc., and their effectiveness at the time.

9. Communications. Pertinent information on aeronautical mobile and fixed service communications and their effectiveness.

10. Aerodrome information. Pertinent information associated with the aerodrome, its facilities and condition, or with the takeoff or landing area if other than an aerodrome.

11. Flight Recorders. Location of the flight recorder installations in the aircraft, their condition on recovery and pertinent data available.

12. Wreckage and Impact information. General information on the site of the accident and the distribution pattern of the wreckage; detected material failures or component malfunctions. Details concerning the location and state of the different pieces of the wreckage are not normally required unless it is necessary to indicate a break-up of the aircraft prior to impact.

13. Diagrams, charts, and photographs may be included in this section or attached in the appendices.

14. Medical and pathological information. Brief description of the results of the investigation undertaken and pertinent data available. Medical information related to flight crew licenses shall be included in 5. Personnel Information.

15. Fire. If fire occurred, information on the nature of the occurrence, and of the fire-fighting equipment used and its effectiveness.

16. Survival aspects. Brief description of search, evaluation and rescue, location of crew and passengers in relation to injuries sustained, failure of structures such as seats and seat-belt attachments.

17. Tests and research. Brief statements regarding the results of tests and research.

18. Organizational and management information. Pertinent information concerning the organizations and their management involved in influencing the operation of the aircraft. The organizations include, for example, the operator; the air traffic services, airway, aerodrome, and weather service agencies; and the regulatory authority. The information could include, but not be limited to, organizational structure and functions, resources, economic status, management policies and practices, and regulatory framework.

19. Additional information. Relevant information not already included in 1 to 17 above.

Analysis and Conclusion

1. The CSSE division shall analyze, as appropriate, only the information documented in factual information of the investigation, which is relevant to the determination of conclusions and causes.

2. Based on findings and analysis, the CSSE division shall ensure the conclusion includes both the immediate and the deeper systematic causes.

Recommendations

1. The CSSE division shall ensure to state briefly the safety recommendations made for the purpose of accident/incident/event prevention and any resultant corrective action.
2. Useful investigation techniques. When useful investigation techniques have been used during the investigation, briefly indicate the reason for using these techniques.
3. Appendices. Include, as appropriate, any other pertinent information considered necessary for the understanding of the report.

Results of Investigation

1. The CSSE division shall ensure that:
    a. The results of the investigation are used to ascertain measures that would best tend to prevent similar accidents or incidents in the future.
    b. The incident or accident investigation results are fact-finding proceedings with no formal issues and no adverse parties.
2. The incident or accident investigation results are not used for the purpose of determining the rights or liabilities of any person.

5.1.3 State Investigation

In an AIB investigation, participants shall be limited to representatives of Riyadh Air, government agencies, and organization whose employees, functions, activities, or products were involved in the occurrence and who can provide suitable qualified technical assistance in the investigation; No person or lawyer who represents any media, claimants, insurers, nor consultants will be allowed to participate in or observe any portion of an investigation conducted by the AIB.

When an aircraft accident/serious incident occurs in a foreign State, the procedures involving investigation are set out in Annex 13 to the ICAO Convention, of which the main points are:

1. The State in which the accident/incident occurs always has the right to appoint a person to conduct the investigation and prepare the subsequent report. If the accident/incident occurs in international waters then this right reverts to the State of Registry of the aircraft;
2. The person appointed to conduct the investigation is known as the Investigator-in-charge (IIC);
3. The State of Registry has the right to send an accredited representative to participate in the investigation. This person, usually from the KSA AIB, is authorized to be accompanied by advisers who may represent the aircraft operator, the manufacturer or other parties deemed necessary to be involved;
4. The State of Registry is obliged to provide the State of Occurrence with information on the aircraft, its crew, and its flight details;
5. The accredited representative (GACA/AIB) and any advisers should be entitled to:
    a. Visit the scene of the accident;
    b. Examine the wreckage;

c. Question witnesses;

d. Gain access to all relevant evidence;

e. Receive copies of all pertinent documents;

f. Make submissions to the investigation;

g. Receive a copy of the final report.

There is no entitlement for the State of Registry to take part in the analysis of the accident/incident or the development of its cause(s). This is the responsibility of the State conducting the investigation.

If an aircraft accident/incident occurs in the Kingdom of Saudi Arabia, the GACA/AIB, as the state of occurrence will appoint an Investigator-in-Charge.

VPCSSE or his nominated deputy will liaise with the GACA/AIB and agree the amount of advice and assistance that Riyadh Air will provide, either to the GACA/AIB Investigator in-charge, or in the case of foreign accidents, the GACA/AIB accredited representative. Riyadh Air may provide technical expertise to the GACA/AIB as required.

5.1.4 Electronically Derived Flight Data

During State investigation, AIB is the sole entity authorized to retrieve flight recorders for the purpose of safety investigations. No Riyadh Air staff shall retrieve flight recorders from an aircraft involved in an aviation occurrence being investigated by the AIB.

When a company aircraft is involved in an accident or a serious incident in another country, AIB will, upon request from the local authority conducting the investigation, provide the flight recorder records and, if necessary, the associated flight recorders.

The recovery and handling of the recorder and its recordings shall be assigned only to qualified AIB personnel. At times the AIB may call upon Riyadh Air to provide qualified staff for the retrieval of the DFDR and CVR.

5.1.4.1 Flight Recorders Data

Riyadh Air aircraft are equipped with Flight Data Recorder (FDR). The FDR are capable of retaining data recorded during at least the last 25 flying hours of its operation except that one hour of the oldest recorded material may be erased during routine testing and maintenance.

To cover the need for retrieval and conversion of stored data, a document must be kept by technical giving instructions on how this is done.

Following an accident or an incident which is subject to mandatory reporting, or when the Authority so directs, the original recorded data relating to that accident or incident will be preserved for a period of 60 days, unless otherwise directed by the investigating Authority.

The FDR shall be kept in secure and guarded storage by Technical Department.

Recordings from the FDR may not be used for any purpose other than the investigation of accidents or incidents subject to mandatory reporting, except when said recordings:

1. Are used by the Company exclusively for air navigation or maintenance purposes; or
2. Identification details are duly erased; or

3. They are revealed in accordance with safe procedures.

5.1.4.2 Use of Flight Recorder Recordings Following a (Serious) Incident or Accident Subject for Mandatory Reporting

1. CVR recordings may not be used for purposes other than for the investigation of (serious) incident or accident subject to mandatory reporting except when all the crew members concerned give their consent.
2. Flight data recorder recordings may not be used for purposes other than for the investigation of an (serious) incident or accident subject to mandatory reporting except when such recordings are used for airworthiness or maintenance purposes, de-identified, or disclosed under secure procedures.

5.1.4.3 Cockpit Voice Recorder Data

Riyadh Air aircraft are equipped with Cockpit Voice Recorder (CVR). The CVR is capable to preserve the information recorded during at least the last 25 hours of its operations.

Following an accident or serious incident, the crew shall pull the CVR, if so requested by the Authority and/or by Riyadh Air Procedures. If approved by VPCSSE, the CVR shall be removed by the technical department and shall be kept in secure and guarded storage.

Recordings from the CVR may not be used for any purpose other than the investigation of an accident or a serious incident/incident that is subject to obligatory notification, except with the VPCSSE approval and with the consent of all crew members concerned.

Riyadh Air shall not permit recorded data on a Cockpit Voice Recorder (CVR) to be manually erased during or after flight in the event of a (serious) incident or accident subject to mandatory reporting.

If the CVR has been disabled or switched off an ASR must be completed.

An entry in the technical logbook - clearly marked as 'INCIDENT' - is required to ensure that the C/B of the CVR is (and remains) pulled and clipped as soon as possible by maintenance and that the CVR is removed from the airplane after arrival.

If a flight has terminated in a (serious) incident or accident and the electrical power has been removed from the airplane it must be ensured that the C/B of the CVR is pulled and clipped by maintenance before electrical power is re-applied to the airplane in order to prevent inadvertent erasure of the CVR.

Riyadh Air shall preserve the original recorded data pertaining to that (serious) incident or accident subject to mandatory reporting, as retained by a flight recorder, to the extent possible, for a period of 60 days unless otherwise directed by the investigating Authority.

5.1.5 Monitoring And Controlling Corrective Actions

VPCSSE is to oversee the completion of the corrective actions and recommendations.

Divisional/departmental head is responsible for implementation of corrective actions and recommendations.

Riyadh Air centralizes the recommendations in CSSE division shared folder. Whenever an investigation is conducted, key information shall be recorded in a database by the safety staff. This includes a short description of the event to include date, location, aircraft registry, and flight number as appropriate. All recommendations shall be consolidated with its corresponding corrective actions done by the concerned division/department.

Should the division/department does not concur with the recommendation, A formal communication shall be forwarded to the VPCSSE outlining the reason of the non-concurrence.

Implementation of corrective action based on the recommendations shall be done by the concerned division/departments the soonest possible within stipulated time. The Safety specialist shall enter the investigation report, along with the findings, causes related to findings, and the recommendations, in IQSMS.