

Appendix G

ICAO MODEL RUNWAY INCURSION CAUSAL FACTORS IDENTIFICATION FORM

Initial runway incursion report no.: _____

A. Date/time/place of runway incursion (in UTC)
(YYYYMMDDhhmm) _____
(date) (time) (place)

B. Aircraft, vehicle or person involved in the runway incursion (indicate all those involved in the occurrence)

Aircraft 1: _____

Aircraft 2: _____

Aircraft 3: _____

Vehicle: _____

Person: _____

C. Severity of the runway incursion (select as appropriate)

<i>Severity</i>	
A	<input type="checkbox"/>
B	<input type="checkbox"/>
C	<input type="checkbox"/>
D	<input type="checkbox"/>
E	<input type="checkbox"/>

D. Causal and coincident factors (select from the list as appropriate — multiple choices can be made)

1. AIR TRAFFIC CONTROL

1.1 *Communications*

1.1.1 Transmitted instructions were long, complex, spoken rapidly or not in accordance with ICAO language requirements for air-ground radiotelephony communications (language normally used by the station on the ground or the English language)¹

1. ICAO language requirements for air-ground radiotelephony communications are shown in Annex 10 — *Aeronautical Telecommunications*, Volume II, Chapter 5, and Annex 1 — *Personnel Licensing*, Chapter 1 and Appendix 1.

- 1.1.2 Did not obtain readbacks for clearances, instructions and coordination as required by ICAO
- 1.1.3 Did not correct an error in a readback
- 1.1.4 Issued a clearance to the wrong aircraft
- 1.1.5 Confused similar call signs
- 1.1.6 Transmission was completely blocked
- 1.1.7 Deviation from established ICAO standard phraseologies
- 1.1.8 Other (please specify). If not an ICAO procedure, please briefly describe the procedure used and where.

1.2 **Situational awareness**

- 1.2.1 Head-down time due to equipment/displays; duties other than traffic processing such as inputting flight data
- 1.2.2 Forgot:
 - aircraft on an active runway
 - aircraft cleared to cross a runway
 - aircraft in the lined-up position
 - aircraft on approach to land
 - to issue a clearance
 - that a clearance had already been issued
 - closed runways
 - a vehicle on an active runway
 - a vehicle cleared to cross a runway
- 1.2.3 Distractions due to:
 - performing other assigned duties, such as conducting operational telephone calls, weather observations and recording, issuing NOTAM and other operational information
 - engaging in non-operational activities such as a personal telephone call, extraneous conversation, reading material and radios
- 1.2.4 Used a language not in accordance with ICAO language requirements for air-ground radiotelephony communications (language normally used by the station on the ground or the English language)
- 1.2.5 Other (please specify).

- 1.2.6 Misidentified the aircraft or the aircraft's position due to:
 - incorrect position report
 - an incorrect expectation (e.g. expected the aircraft to be clear of the runway)
- 1.2.7 Lack of visual scanning of ground movements
- 1.2.8 Limitations on the view of the manoeuvring area from the ATC tower
- 1.2.9 Recent runway configuration change
- 1.2.10 Unusual runway configuration
- 1.2.11 Error occurred within 15 minutes of assuming the control position
- 1.2.12 Controller was conducting on-the-job training
- 1.2.13 Fatigue
- 1.2.14 Other (please specify).

1.3 **Staffing**

- 1.3.1 ATC positions were combined on the same frequency
- 1.3.2 Absence of a supervisor in the tower
- 1.3.3 Supervisor was working a control position.

1.4 **Decision making**

- 1.4.1 Misjudged separation or anticipated separation
- 1.4.2 Inadequate ATC to ATC coordination
- 1.4.3 Other (please specify).

1.5 **Procedures**

- 1.5.1 Misapplication of conditional clearances
- 1.5.2 Use of multiple line-up clearances
- 1.5.3 Other (please specify). If not an ICAO procedure, please briefly describe the procedure used and where.

1.6 ***Aerodrome works***

- 1.6.1 ATC not advised of works on the manoeuvring area
- 1.6.2 Other (please specify).

2. FLIGHT CREW

2.1 ***Communications***

- 2.1.1 Transmission was completely blocked
- 2.1.2 Transmission was partially blocked ("stepped-on")
- 2.1.3 Accepted a similar aircraft's clearance:
 - with similar call signs
 - without similar call signs
- 2.1.4 Deviation from established ICAO standard phraseologies
- 2.1.5 Used other than ICAO language requirements for air-ground radiotelephony communications (language normally used by the station on the ground or the English language) in a situation not covered by ICAO standard phraseology
- 2.1.6 Used language not in accordance with ICAO language requirements for air-ground radiotelephony communications (language normally used by the station on the ground or the English language)
- 2.1.7 Speech quality:
 - not proficient in ICAO language requirements for air-ground radiotelephony communications (language normally used by the station on the ground or the English language)
 - poorly enunciated or heavily accented
 - spoken rapidly
 - spoken with an inconsistent volume
- 2.1.8 Did not use headsets
- 2.1.9 Received clearance or instructions during periods of high cockpit workload
- 2.1.10 Did not advise ATC of a delay on the runway prior to take-off
- 2.1.11 Other (please specify).

2.2 **Situational awareness**

- 2.2.1 Crew conducting checklists while taxiing
- 2.2.2 Crew member programming flight management system or other flight deck system while taxiing
- 2.2.3 Crew member was on another radio frequency
- 2.2.4 Competing radio communications
- 2.2.5 Unfamiliar with the aerodrome layout
- 2.2.6 Crew mistook their position on the aerodrome (thought they were in a different location)
- 2.2.7 Fatigue
- 2.2.8 Reported incorrect location to ATC
- 2.2.9 Taxied fast
- 2.2.10 Did not refer to the aerodrome diagram
- 2.2.11 Did not listen to the automatic terminal information service (ATIS)
- 2.2.12 Works on the manoeuvring area were not previously advised by NOTAM
- 2.2.13 Used out-of-date or inaccurate publications or charts
- 2.2.14 Failed to apply or correctly observe sterile cockpit procedures
- 2.2.15 Other (please specify).

2.3 **Markings, signs and lighting**

- 2.3.1 Not ICAO-compliant
- 2.3.2 Not provided
- 2.3.3 Irregularly spaced
- 2.3.4 Ambiguous and difficult to follow
- 2.3.5 Poorly sized
- 2.3.6 Poorly situated
- 2.3.7 Poorly maintained
- 2.3.8 Other (please specify).

2.4 *Clearances and instructions*

- 2.4.1 Misunderstood clearance:
 - conditional
 - follow
 - other
- 2.4.2 Flight crew did not ask for clarification when they did not understand a clearance or instruction
- 2.4.3 Did not inform ATC when could not comply with a clearance
- 2.4.4 Forgot part of the clearance or instruction
- 2.4.5 Entered the runway after being instructed to "hold short"
- 2.4.6 Lined up on the runway after instruction to taxi to the runway-holding position (point)
- 2.4.7 Took off without a clearance after being instructed to "line up and wait"
- 2.4.8 Took off without a clearance after being instructed to taxi to the runway-holding position (point)
- 2.4.9 Landed or departed on the wrong runway
- 2.4.10 Landed or departed on the taxiway
- 2.4.11 Other (please specify).

3. VEHICLE DRIVERS AND PEDESTRIANS

3.1 *Communications*

- 3.1.1 Did not operate on the appropriate:
 - ground frequency for operations outside the runway strip
 - tower frequency for operations within the runway strip
- 3.1.2 Turned the radio volume down or off after initial communication with ATC
- 3.1.3 Other (please specify).

3.2 *Situational awareness*

- 3.2.1 Forgot the details/limits of any clearance to operate on the manoeuvring area
- 3.2.2 Distracted by:
 - current work
 - high noise levels

- monitoring more than one frequency and possibly a mobile telephone
- being disoriented or lost on the aerodrome
- 3.2.3 Failure to report correct location
- 3.2.4 Other (please specify).

3.3 **Markings, signs and lighting**

- 3.3.1 Not ICAO-compliant
- 3.3.2 Not provided
- 3.3.3 Irregularly spaced
- 3.3.4 Ambiguous and difficult to follow
- 3.3.5 Poorly sized
- 3.3.6 Poorly situated
- 3.3.7 Poorly maintained
- 3.3.8 Other (please specify).

3.4 **Procedures**

- 3.4.1 Not adequately familiar with the aerodrome and its procedural requirements
- 3.4.2 Did not refer to the current aerodrome NOTAM
- 3.4.3 Did not refer to the current aerodrome diagram
- 3.4.4 Used out-of-date or inaccurate publications or charts
- 3.4.5 Did not advise ATC of work that affected operations
- 3.4.6 Ground vehicles did not stop at required positions
- 3.4.7 Other (please specify).

3.5 *Clearances and instructions*

3.5.1 Did not comply with ATC clearances and instructions

3.5.2 Mistook a clearance intended for another vehicle or aircraft

3.5.3 The driver did not advise ATC that he/she did not understand the clearance or instruction

3.5.4 Other (please specify).

E. Person submitting the form

Name

Title

Date

**2. INSTRUCTIONS FOR COMPLETING THE
RUNWAY INCURSION CAUSAL FACTORS IDENTIFICATION FORM**

Item

- A Indicate the date/time (in UTC) and place of the runway incursion.
- B Identify the aircraft, vehicles and persons involved in the runway incursion.
- C Classify the severity of the runway incursion according to Chapter 6 of the *Manual on the Prevention of Runway Incursions* (Doc 9870).
- D Fill out all causal and coincident factors applicable to the runway incursion.
- E Provide details of the person submitting the form and the date.

Note.— When instructed by ICAO, the information on this form should be sent to ICAO to facilitate global identification of runway incursion casual factors.
