**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# VFR flight with radio failure: which weather does it stay in?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# VFR flight with radio failure: where does it land?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# VFR flight with radio failure: how does it report its arrival?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Radio failure: which channel does the crew try first?


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

At the nearest suitable aerodrome.

SERA.14083(c)(3)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

Visual meteorological conditions (VMC).

SERA.14083(c)(3)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

The previous channel, then another channel suitable for the route.

SERA.14083(a)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

To the appropriate ATS unit, by the quickest means.

SERA.14083(c)(3)


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Radio failure: whom does the crew try to reach after the channel attempts fail?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Radio communication failure: which transponder code does the aircraft set?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Radio failure at a controlled aerodrome: what does the aircraft watch for?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Why is the radio failure procedure fixed?


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

Code 7600, after the attempts to re-establish contact fail.

SERA.13005(a)(2); SERA.14083(c)(2); SERA.14083(c)(1), (c)(2), (g)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

The appropriate ATS unit, other ATS units or other aircraft, by every available means.

SERA.14083(a)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

ATC gives other traffic its service on the premise that the aircraft follows the procedure.

SERA.14083(d); AMC1 SERA.14083(d)(b); GM1 SERA.14085


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

Visual (light) signals, when it is in the aerodrome traffic.

SERA.14083(c)(1), (c)(2), (g)


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Which transponder code shows an emergency?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Which transponder code shows unlawful interference?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# IFR flight with radio failure that continues in VMC: which Mode A code?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# What is the VHF emergency frequency?


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

Code 7500. Code 7700 can be used instead when circumstances warrant.

SERA.11005(aa); SERA.13005(a)(3)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

Code 7700, unless ATC has assigned a code. Even then, a pilot can select 7700 for a specific reason.

SERA.13005(a)(1); GM1 SERA.11001(a)(3); SERA.13005(a)(1)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

121.500 MHz (121.5 MHz), for genuine emergencies only.

SERA Art. 4a; SERA.14095(d); ATS.OR.405; SERA.14080; SERA Article 4a(1); SERA.14095(d); Reg. (EU) 2017/373 Article 3d; ATS.OR.405(a)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

Code 7601. ICAO has no code 7601.

SERA.14083(c)(6); SERA.14083(c)(6); Reg. (EU) 2024/404 Art. 2 and Annex point (15)


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

## Which aircraft must guard 121.5 MHz?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

## Distress message: which opening word, and how often is it spoken?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

## Urgency message: which opening word, and how often is it spoken?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

## What is a distress condition?


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

MAYDAY, preferably three times.

SERA.14095(b)(1); SERA.11012(b); SERA.14095(a)(2), (b)(1), (c)(1)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

Aircraft on long over-water flights and over areas where an ELT is required, except while the radio is busy on another channel or equipment or workload does not allow it. Also where the competent authority requires it.

SERA.14080(a)(1), (a)(2); AMC1 SERA.14080


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

A serious and/or imminent threat that needs immediate assistance.

SERA.14095(a)(1)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

PAN PAN, preferably three times.

SERA.14095(c)(1); SERA.14095(a)(2), (b)(1), (c)(1)


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Distress or urgency: which traffic has absolute priority?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Blind transmission with no contact by any means: how is the message sent?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Receiver failure: what is the preamble of a blind transmission?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# IFR radio failure: for how long does the aircraft keep its last assigned speed and level?


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

Twice, preceded by TRANSMITTING BLIND.

SERA.14085(a)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

Distress traffic. Urgency traffic comes next.

SERA.14095(b)(4), (c)(3)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

20 min, or the minimum flight altitude if higher. Counted from a missed required report or from squawking 7600 under surveillance.

SERA.14083(c)(4)(i); SERA.14083(c)(4), (c)(5)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

TRANSMITTING BLIND DUE TO RECEIVER FAILURE, then the message and one complete repetition.

SERA.14085(b)(1); SERA.14085(b)


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

## IFR radio failure: land within how long after the ETA or the last acknowledged EAT?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

## Arrival unit suspended normal operations: after how long without a report does ATC inform operators?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

## ICAO only: how long does an IFR aircraft keep its last speed and level in surveillance airspace?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

## Emergency descent guidance over normal terrain: what clearance above obstacles?


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

30 min after the latest of the pilot ETA, the ACC ETA or the last acknowledged EAT.

AMC1 SERA.14083(d)(e); AMC1 SERA.14083(d)(e); GM2 SERA.14083(d)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

Within 30 min after whichever is later: the ETA or the last acknowledged EAT.

SERA.14083(c)(4)(vi); SERA.14083(c)(4), (c)(5)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

1 000 ft above the highest obstacle in the area. Do not go below the lowest published minimum altitude giving this clearance.

GM1 SERA.11001(b)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

7 min under ICAO. SERA uses 20 min, and the EU rule in force is 20 min.

ICAO Doc 4444, 15.3.3 b) 2); ICAO Doc 4444, 15.3.3 b) 2); SERA.14083(c)(4)(i)


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Emergency descent guidance in designated mountainous terrain: what clearance above obstacles?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Emergency separation where the 1 000 ft minimum applies: vertical separation?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Emergency separation where the 2 000 ft minimum applies: vertical separation?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Emergency in the air: what does ATS give the aircraft?


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

500 ft, half the vertical minimum, when horizontal separation cannot be kept.

AMC1 ATS.TR.210(c)(a); AMC1 ATS.TR.210(c)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

2 000 ft above all obstacles in the area.

GM1 SERA.11001(b)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

As much consideration, help and priority over other traffic as the situation calls for.

SERA.11001(c)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

1 000 ft, half the vertical minimum, when horizontal separation cannot be kept.

AMC1 ATS.TR.210(c)(a); AMC1 ATS.TR.210(c)


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Emergency authority: when can the pilot-in-command depart from the rules of the air?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Unlawful interference: what does the pilot tell ATS?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# Unlawful interference: does ATS mention the nature of the emergency on the radio first?


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

QUESTION

# What is a strayed aircraft?


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

Significant circumstances, and any departure from the flight plan.

SERA.11005(aa); SERA.13005(a)(3)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

When this is absolutely necessary for safety. The pilot then tells ATS afterwards.

SERA.2010(a); SERA.8020(a)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

An aircraft significantly off its intended track, or one that reports it is lost.

SERA Article 2(123), 2(137)


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

No. It does so only when the aircraft mentions it first and ATS is sure this will not make things worse.

ATS.TR.425(b); SERA.10005(b); GM1 to AMC1 SERA.11005(a)(1)


© rpvfalmeida · CC BY-NC-ND 4.0

QUESTION

# Strayed aircraft: what does ATS give once it knows the position?


© rpvfalmeida · CC BY-NC-ND 4.0



QUESTION

# ICAO only: how is a lost VFR pilot handled?


© rpvfalmeida · CC BY-NC-ND 4.0

**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

As an emergency, without blame at that stage. The EU rules in SERA do not state this.

ICAO Doc 4444, 15.4.1.1


© rpvfalmeida · CC BY-NC-ND 4.0



**Emergencies, communication failure and contingencies**
010 Air Law and ATC Procedures › 07 Air traffic services

**ANSWER**

Where the aircraft is and the corrective action to take, given at once if interception or another hazard is possible.

SERA.11010(a)(3)


© rpvfalmeida · CC BY-NC-ND 4.0