



A 8. ROUTE AVAILABILITY DOCUMENT (RAD)

Cancels AIC A 2/2007.

<https://www.cfm.eucontrol.int/PUBPORTAL/gateway/spec/index.html>

1. Introduction

- 1.1 The RAD is a sole-source flight-planning document, which integrates both structural and ATFCM requirements, geographically and vertically. The RAD is updated each AIRAC cycle following a structured standard process of 1. Requirement 2. Validation 3. Publication by the Central Flow Management Unit (CFMU) in cooperation/coordination with the States and the Aircraft Operators.
- 1.2 For details of route characteristics (directions flight levels, waypoints etc.), refer to the ENR section of the relevant AIP.
- 1.3 The RAD is only applicable to the IFR part of the Flight Plan.

2. Basic principles

- 2.1 The objective of the RAD is to facilitate flight planning in order to improve **ATFCM** while allowing aircraft operators' flight planning flexibility. It provides a single, fully integrated and co-ordinated routing scheme. Except where otherwise specified the RAD affects all CFMU airspace.
- 2.2 The RAD enables ANSPs to maximise capacity and reduce complexity by defining restrictions that prevent disruption to the organised system of major traffic flows through congested areas with due regard to Aircraft Operator requirements.
- 2.3 The RAD is designed as a part of the CFMU ATFCM operation. It is organising the traffic into specific flows to make the best use of **available** capacity. Whilst, on its own, it will not guarantee the protection of congested ATC sectors during peak periods, it should facilitate more precise application of tactical ATFCM measures.
- 2.4 The RAD should also assist the CFMU in identifying and providing re-routing options. Global management of the demand will, potentially, lead to an overall reduction of delays. It is important to note that to achieve this, some re-distribution of the traffic may be required through the implementation of Scenarios. This may result in modified traffic/regulations in some areas where, under normal circumstances, they would not be seen.
- 2.5 The RAD will be subject to continuous review by the CFMU **and the ANSPs** to ensure that the requirements are still valid and take account of any ATC structural or organisational changes that may occur. Further reviews may be initiated at the request of the States or the User organisations.

3. Structure

3.1 The routing organisation is defined by a list of restrictions on specific ATS route points **or** segments in both the upper and lower airspace.

3.2 The document is divided into 2 unique parts:

Part I consists of a separate Annex for each State identified by the ICAO 2 letter identifier (eg ANNEX LF for France) together with an Annex for the North Atlantic (NAT) and an Annex dedicated to Routes for Military Traffic flying GAT (MIL). Also included in Part 1 are 4 Appendices; Appendix 1 defines the RAD; Appendix 2 defines Area Definitions (TMA, FIR etc); Appendix 3 defines City Pair Level Caps; Appendix 4 defines the DCT (Direct) flight plan filing limitations imposed by each State.

Part II is a pan-European document that lists all restrictions across the European theatre of operations. The list of restrictions is defined alphabetically (eg: A1, UA1, A2, UA2....Z999, UZ999). It is the responsibility of each State to ensure that the restrictions listed in Part II are aligned with those listed in Part I.

3.3 In Appendix 2 the term "Group" is used to define a number of airfields that may be subject to the same restrictions. For example a major destination may have a number of minor satellite airfields in the vicinity; this constitutes a "Group". The term "Area" is also used, this is defined as a number of airfields within the same region and may comprise several "Groups", or individual airfields.

3.4 The RAD includes all route flow restrictions valid for the State concerned together with any relevant restrictions included in LOAs between adjacent ACCs/UACs.

Notes: 1) Details of weekend periods are included in each Annex where relevant. The start and end time of the periods relates to the entry to the segment concerned.
2) Additional periods can be declared as weekends (e.g. Busy Fridays, Nights, Bank Holidays), refer to national publication and relevant annex for the details.

3.5 A restriction shall not qualify for inclusion in the RAD unless it has a FLOW ELEMENT attached to it. A FLOW ELEMENT is defined as affecting either;

- a) Departures from an Airfield/Group/Area;
- b) Arrivals to an Airfield/Group/Area;
- c) Traffic flying between Airfields/Groups/Area;
- d) Overflying traffic

3.6 Restrictions are divided into **three** different categories:

either "STRUCTURAL" (S), "ROUTING" (R) or a combination of the two (S/R). This definition is determined and provided by each State for their respective Annex.

3.7 The structure of each restriction is hierarchical and specific and has been arranged in a fashion to facilitate parsing of the information into computer systems.

3.8 There are 3 main types of restrictions, the inclusive, exclusive and compulsory, examples of which are given below:

INCLUSIVE restriction

UN869 LERGA-OLRAK Not available for traffic
Above FL270
With Dep.LSAGFIR,Chambery TMA, Lyon TMA
With Dest. LFBBFIR, LFRRFIR

Traffic must meet **ALL** of the conditions to be subject to the restriction

EXCLUSIVE restriction

UL976 OBATO - RONAX Not available for traffic

1. Dest. LFPG/B
2. Via MMD
Except Dest. ELLX, EBLG, EHBK,
EDDR/FH/LN, ETAR/AD/SB, LFJL/SF
3. Via CHW
With Dest. EBBUFIR
Except Dest. EBLG, ELLX

Traffic only needs to meet **ONE** of the conditions to be subject to the restriction.

COMPULSORY restriction

UL865 BOL – TAQ Compulsory for traffic
Dep. LIML
With Dest. LICJ

Traffic has no other option; it shall fly this route segment

- 3.9 Each RAD Annex should also comprise a list of ADVISORY routeings for Major Traffic Flows to assist with Flight Planning, until such time as the process is fully automated.
- 3.10 Each RAD unit shall be uniquely identified by a 6 digit alpha/numeric identifier which comprises the 2 letter ICAO code of the State of origin, together with a 4 digit number (LF2016). Cross-border restrictions shall be identified with an 8 digit alpha/numeric comprising the 2 letter ICAO code of the State of origin together with the 2 letter ICAO code of the adjacent state which is affected by the restriction, followed by a 4 digit number (EGEB1009). National Annexes shall use 2000 series identifiers except for cross-border restrictions which shall use 1000 series. Appendix 3 shall use 4000 series identifiers; Appendix 4 shall use 5000 series; Military Annex shall use 7000 series and all Notes are promulgated using 9000 series.

4. Period of validity

- 4.1 The routeing organisation is permanently effective and applies daily H24, except where otherwise specified. When it can be identified that capacity is surplus to demand the RAD restrictions may be relaxed from the H24 time constraints.
- 4.2 The RAD may be suspended, or temporarily relaxed, in cases where it is have an abnormally adverse impact upon the traffic flows. This action will always be co-ordinated through the CFMU and all participants

5. CFMU Application

- 5.1 The RAD will be fully integrated into the CFMU systems, including IFPS, through the Route Restrictions computer model. Any changes to an Annex will automatically be checked provided the relevant notification period has been observed.
- 5.2 Changes agreed outside the AIRAC cycle will not be handled automatically by IFPS until such time as the system can be updated at the appropriate AIRAC date.

6. Amendment process

- 6.1 Permanent amendments to the RAD, or the period of validity, will be co-ordinated by the CFMU with the States concerned together with the AO Organisations. All States concerned shall provide their request for changes to CFMU, taking into account agreed publication and implementation dates, in accordance with AIRAC procedures and CFMU Handbook (Provision of Environment data).
- 6.2 Suspension of NavAids, and/or replacement by temporary mobile units will be promulgated in the appropriate Annex of the RAD. States should ensure that CFMU OpsD is notified of these changes.

6.3 Amendments will be published as follows:

- a) 34 days in advance of the relevant AIRAC cycle.
- b) Amendments will be highlighted in **BOLD** lettering and will be annotated with a revision bar (|).
- c) Restrictions that have been removed will be annotated at the end of the relevant Annex under the heading "Withdrawn restrictions."
- d) Last minute changes will only be accepted in exceptional circumstances, and only when they have a significant impact on operational requirements. These changes will be promulgated on the CFMU website under the "What's New" button.

7. Temporary changes

7.1 Temporary changes due to exceptional circumstances (e.g. major equipment failure, industrial action or large-scale military exercises) may necessitate the suspension of part of the RAD for specified periods, and additional routeings will be activated where possible following co-ordination with the relevant FMPs and AO Organisations. Changes will be published by AIM giving details of the traffic affected, the period of activation and the corresponding routeings.

8. NOTAM Series F

8.1 NOTAM series F procedures will be promulgated at a later date and will be used to:

1. Announce the publication of a new version of the RAD via the TRIGGER NOTAM process;
2. Amend the RAD for short time periods (refer to routing scenarios);
3. Facilitate the publication of last minute changes or corrections.

9. Flight planning (Refer to IFPS Users Manual for full details)

9.1 The RAD defines restrictions on routes/points, through specified areas during the published period of validity. Aircraft operators planning flights through these areas must flightplan in accordance with these route restrictions, taking into account any change of validity.

9.2 When a route is restricted between two points it must be understood that all segments, between the recorded points, are included in the restriction.

Cross-border restrictions shall be recorded in the Annex relevant to the State/FIR responsible for the restriction. Where joint requirements exist cross-border, the restriction shall be recorded in the Annex relevant to the State/FIR within which the first point of that restriction lies.

9.3 When filing flight plans, aircraft operators must comply with any flight level limitation published in the RAD.

9.4 An operator who has submitted a flight plan for a route and wishes to change to another route must either; send a CHG message giving the new route or; cancel the existing flight plan and submit a new flight plan following the replacement flight plan procedure. This applies equally to re-routeing proposed by the CFMU and to changes made at the initiative of the **AO**.

10. Routeing scenarios

- 10.1 For each area expected to be critical, a number of flows could be identified, for which other routeings are available, that follow the general scheme, but avoid the critical area. These are known as routeing scenarios.
- 10.2 When, during the planning phase, the CFMU identifies the risk of major imbalance between demand and capacity, it may be decided, after agreement with all FMPs concerned, to make part (or all) of the alternative routeings mandatory for the period expected to be critical.
- 10.3 Scenarios may be identified which require the temporary suspension of route restrictions within the RAD for a particular traffic flow.
- 10.4 The list of available scenarios are promulgated on the CFMU website.

11. Tactical operations

- 11.1 The CFMU in conjunction with the FMPs will monitor the actual situation during the day of operation to ensure the RAD is achieving the balance of traffic required.
- 11.2 During periods of unanticipated high demand the CFMU may co-ordinate an extension to the period of validity of routeing scenarios with the relevant FMPs. This will be published by AIM, giving at least three hours notice.
- 11.3 During periods of significant improvement to the ATFCM situation, the CFMU will co-ordinate with the relevant FMP, a reduction in the period of validity of scenarios. This will be published by AIM.
- 11.4 If, due to a major unexpected event, there is a significant disturbance to traffic patterns, after co-ordination with the relevant parties (FMPs and AO's), the CFMU may suspend part of the RAD and provide alternative routeings.

12. National Holidays

- 12.1 To access data regarding National Holidays pertinent to each State, refer to GEN 2.1 of the respective AIP.

13. Publication

- 13.1 The RAD is created in accordance with ICAO publication procedures and is published by the CFMU via the CFMU Website and the EAD, 34 days prior to the relevant AIRAC cycle.
- 13.2 Each State may promulgate the RAD by any one of the following methods:
 - a) Publish the Part I or Part II of the RAD in its entirety as an AIP Supplement (the onus is on the State to ensure that the RAD is kept up to date)
 - b) Publish relevant Annexes/Appendices of the RAD as an AIP Supplement.
 - c) Publish reference to the CFMU website in the AIP.

<u>DAY</u>	<u>PROCESS</u>	<u>ACTION</u>
D -56	Finalisation of States requirements	States
D -56	Notification to States "One week to Cut-off"	CFMU OpsD
D -49	Cut-off. States provide amendments to CFMU OpsD	States
	Two weeks to compile the RAD and to resolve errors/conflicts	CFMU OpsD
D -34	Publication	CFMU OpsD
	Two weeks to assess impact of new restrictions	CFMU OpsD
D -14	Results of impact assessment of new restrictions	CFMU OpsD
	Changes/amendments to be promulgated on "What is new" on the website.	CFMU OpsD
D -10	10.00 CET Teleconference for States to present changes for the D +38 AIRAC and to resolve issues	ALL
D -10	Freeze of ENVironment tape for AIRAC	CFMU OpsD

- END -