

Flight Plan Alternates in Europe

David Mumford

18 April, 2023



In the US, under certain conditions you can get away with not having to select an alternate – as long as both ends of one runway are suitable and available, you have two runways. In Europe, there's a similar rule, but the key difference is that there has to be **separate runways** – not one runway which you could land at either end of.

EASA recently issued this reminder letter to Third Country Operators:

For a flight to be conducted in accordance with the instrument flight rules, at least one destination alternate aerodrome shall be selected and specified in the operational and ATS flight plans, unless the duration of the flight from the departure aerodrome, or from the point of in-flight re-planning to the destination aerodrome is such that, taking into account all meteorological conditions and operational information relevant to the flight, at the estimated time of use, a reasonable certainty exists that:

- 1. the approach and landing may be made under visual meteorological conditions (VMC); and*
- 2. separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational instrument approach procedure.*

In accordance with the ICAO definition, separate runways are two or more runways at the same aerodrome configured such that if one runway is closed, operations to the other runway(s) can be conducted.

Several ICAO contracting States have filed a difference to ICAO with regard to this standard, because their national regulation does not contain a requirement for separate runways at the destination aerodrome when opting to file a flight plan without a dedicated destination alternate aerodrome.

Please be informed that EASA expects TCOs to plan their flights in compliance with the ICAO standard. This means that an alternate aerodrome has to be listed in the ATS flight plan where required in accordance with standard 4.3.4.3.1 of Annex 6 Part 1 to the Chicago Convention, even though your national regulation is less restrictive in this aspect.

The respective destination alternate fuel shall be included in the pre-flight calculation of usable fuel in

accordance with standard 4.3.6.3 of said Annex.

EASA will verify compliance by means of sampling flight documents during the initial authorisation and during continuous monitoring of TCO authorisation holders.

Furthermore, ramp inspections performed under SAFA/RAMP inspection programme will serve as an additional source of information for non-compliance.

Where a non-compliance is found, EASA will raise a level-2 finding in accordance with Part-ART of the TCO Regulation (EU) No 452/2014.

We therefore, encourage you to review your flight planning procedures and where necessary to align those to ensure full compliance with the respective above-mentioned standards.

So can I plan a flight in Europe without an alternate?

Yes, but only in certain circumstances. EASA CAT.OP.MPA.182 has the details:

AMC2 CAT.OP.MPA.182 Fuel/energy scheme — aerodrome selection policy — aeroplanes

ED Decision 2022/005/R

BASIC FUEL SCHEME — DESTINATION ALTERNATE AERODROME

- (a) For each IFR flight, the operator should select and specify in the operational and ATS flight plans at least one destination alternate aerodrome.
- (b) For each IFR flight, the operator should select and specify in the operational and ATS flight plans two destination alternate aerodromes when for the selected destination aerodrome, the safety margins for meteorological conditions of [AMC5 CAT.OP.MPA.182](#), and the planning minima of [AMC6 CAT.OP.MPA.182](#) cannot be met, or when no meteorological information is available.
- (c) The operator may operate with no destination alternate aerodrome when the destination aerodrome is an isolated aerodrome or when the following two conditions are met:
 - (1) the duration of the planned flight from take-off to landing does not exceed 6 hours or, in the event of in-flight re-planning, in accordance with point [CAT.OP.MPA.181\(d\)](#), the remaining flying time to destination does not exceed 4 hours; and
 - (2) two separate runways are usable at the destination aerodrome and the appropriate weather reports and/or weather forecasts indicate that for the period from 1 hour before to 1 hour after the expected time of arrival, the ceiling is at least 2 000 ft (600 m) or the circling height 500 ft (150 m), whichever is greater, and ground visibility is at least 5 km.

Or if you want to keep it simple, **just file an alternate airport** in your flight plan.

A Cautionary Tale

Here's a recent report from an OPSGROUP member on this:

We were doing flights all over the EU without an alternate, when the weather didn't require one as per our rules. Then we got SAFA ramp checked in EGSS/Stansted, and the ramp inspector took umbrage that we were coming in without an alternate on a clear day. We now carry an alternate for all single runway ops in the EU, with a realistic routing.

A Realistic Routing?

This is another thing to watch out for in Europe. You have to make sure your route to alternate is **computed and included in your flight plan**, that it's **realistic**, and that it **doesn't break any rules**. Let's tackle those in order:

Computed and included in your flight plan:

It should look something like this:

ALTERNATE #1 EDDM / ROUTE: AMIKI ZUE Z601 KPT Z999 ATMAX MERSI T468 BETOS BETOS1A

CRUISE PROFILE: MACH 0.87 @ FL90

WAYPOINTS COORDINATES	AWY ALT	WIND DIR/SPD OAT/ISA	TAS GS	HDG CRS	LEG REM	REM	USED ACT	FLOW	LEG REM	ETE ATE	EPU
LSZH N4727.5/E00832.9	1400	- - -2/-14	0 0	- -	- 176	17327	-	0	- 0:38	-	
AMIKI N4734.4/E00902.2	I16 FL204	H20 051/030 -30/-9	319 302	090 094	28 148	16491	836	8148	0:06 0:32	0:06	
ZUE N4735.5/E00849.1 ZURICH EAST 110.05	DCT 16200	T21 051/030 -30/-9	402 423	277 274	9 139	16471	856	969	0:01 0:31	0:07	
BODAN N4735.2/E00927.1	Z601 9000	H24 056/031 -14/-6	317 293	084 087	26 113	16304	1023	1894	0:05 0:26	0:12	
KPT N4744.7/E01021.0 KEMPTEN 108.4	Z601 9000	H29 060/030 -8/-6	292 263	070 072	37 76	15766	1561	3757	0:09 0:17	0:21	
ATMAX N4755.8/E01045.0	Z999 9000	H30 059/030 -10/-7	291 261	052 052	20 56	15486	1841	3736	0:05 0:12	0:26	
MERSI N4758.9/E01102.6	DCT 9000	H24 061/025 -12/-9	290 266	070 071	12 44	15315	2011	3712	0:02 0:10	0:28	
BETOS N4804.1/E01121.0	T468 9000	H25 061/025 -12/-9	290 265	063 063	14 30	15128	2199	3711	0:03 0:07	0:31	
-TOD- N4808.5/E01139.3	BETOS1A 9000	H25 061/025 -12/-9	290 265	065 066	13 17	14945	2382	3709	0:03 0:04	0:34	
OTT N4810.8/E01149.0 OTTERSBERG 112.3	BETOS1A 6000	H24 062/019 -13/-12	269 244	066 066	7 10	14868	2458	2726	0:02 0:02	0:36	
EDDM N4821.2/E01147.2	BETOS1A 1487	H2 087/019 -7/-14	248 246	354 349	10 -	14751	2576	2762	0:02 -	0:38	

Realistic:

This means you've included a proper route to alternate like the one shown above, **not just one big DCT**. The routing doesn't have to be fully Eurocontrol compliant, it just has to be realistic. That means making sure you **have enough fuel for a missed approach, climb, and descent to alternate**. If you use a SID from your destination airport and join it up with a STAR for your alternate, that's probably a safe bet.

Doesn't break any rules:

The French DSAC recently partnered up with IS-BAO to take a look at hundreds of de-identified ramp check findings in order to analyse **the most frequent CAT 2 and CAT 3 findings in business aviation**. A common one was flights planned to unavailable alternates - usually those that **cannot be used as per AIP or Notam**, or those where you need **PPR**.



RAMP CHECK FINDINGS *Top Offenders*



Flight Planning



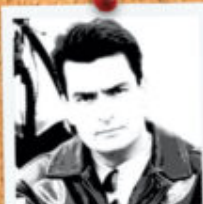
Documents



Defects



Charts



Cabin Safety

Flight Planning

- * Flight planned for an unavailable alternate. LFMD, LFOB, LFLX and LFBE are the usual suspects here.
- * Had no weather briefing or PPR.
- * Bogus flight planning to alternates. (Planning straight lines, outrageous speeds below FL100, and ridiculous fuel computations.)
- * Had the wrong number of pax onboard, or pax sitting in the wrong places. The same errors were found for luggage.
- * Pilot bafflement when asked about the various empty/operating/maximum masses of the aircraft.

Documents

- * Different versions of the same manual or checklist found onboard.
- * No instructions for challenging airports.
- * No procedure for in-flight fuel checks.
- * Dangerous goods not listed properly (i.e. lithium batteries).
- * Outdated versions of the QRH found onboard, or sometimes not found at all!
- * Mismatch between the aircraft configuration and the QRH, or the equipment on the aircraft and the MEL.
- * (O) or (M) procedures inadequate or missing.

Charts

- * Outdated navigation databases or charts (in one case by up to a decade).
- * Missing instrument charts.
- * Use of an unapproved EFB.
- * No storage device installed for the EFB.

Defects



- * Maintenance action from the MEL hadn't been done.
- * Inoperative equipment not mentioned in the tech log, or missing info from engineers.
- * Flight operations conducted beyond the due dates.

Cabin Safety

- * Beds open during critical phases of flight and taxi, blocking emergency exits.
- * Luggage stored in the toilets, left on the floor or seats or in front of an emergency exit.
- * Straps or nets not used to secure stuff in the cargo hold.
- * Household coffee machine installed in the galley.

LFTH/Toulon – can't be used as alternate without PPR.

LFMD/Cannes – can't be used as alternate as per French AIP.

LFMQ/Le Castellet – this sometimes gets used as an alternate for LFMN/Nice and LFML/Marseille. But LFMQ rarely publishes TAF/METAR reports, so if you want to use this, you need to make sure you select at least one other alternate with a weather report!

Do you know of any more? Let us know!

More info

Head [here](#) to download the latest ramp check guidance straight from the horse's mouth.