

# EUROPEAN LEGISLATION – THE EXPECTED EFFECTS ON OPERATORS OF FOREIGN REGISTERED AIRCRAFT (FRA) RESIDENT IN THE EU

# Version 3.1: updated December 2010; by Vasa Babic

### Important note:

The aim of this paper is to provide a synthesis for PPL/IR Europe members of how EASA's published proposals could impact FRA operators. This is not an advocacy paper, but an 'information to members paper'. Some of our FCL and FRA advocacy work is attached to this forum thread: <a href="http://www.pplir.org/pplir/viewtopic.php?f=2&t=2652">http://www.pplir.org/pplir/viewtopic.php?f=2&t=2652</a>. One of the best-argued cases for FRA has been written by Jan Brill and is available here: <a href="http://www.pilotundflugzeug.de/">http://www.pilotundflugzeug.de/</a>

EASA's proposals are not yet European law, there are no opinions published on various important matters of interpretation and it is difficult to forecast how lobbying efforts at the EU level (led by AOPA, EAS, GAMA and the N-Flyer group) may affect the final rulemaking outcome. A recent milestone was the EU Comitology committee meeting in early December 2010, which unanimously passed EASA FCL, leaving only a vote of the EU parliament (spring 2011) before it becomes law and takes effect in April 2012. It appears that a 2 year "derogation" (delay) of the licensing requirements for FRA, until April 2014, will be available at member states' discretion. The EU's stated intention is that a Bilateral Aviation Safety Agreement with the USA would be signed in the meantime, allowing for mutual acceptance of licences.

It is not practical to keep an article as long as this updated, therefore, the reader should refer to both the website news sections and the members' forum.

## 1. The scope of European regulations

EASA was established in 2003 as the EU regulatory and rule-making body for aviation. Initially, EASA's scope was limited to aircraft certification and maintenance. However, a process to extend this scope resulted in the EASA "Basic Regulation", which became EU law in 2008.

The Basic Regulation extended EASA's powers to include all the remaining JAA activities (Flight Crew Licensing (FCL), Operations (OPS), Medical (MED), etc) in addition to existing EASA functions like airworthiness (Part M) and certification (Part 21).

Article 4(1)(c) of the Basic Regulation defines its applicability, and states that "Aircraft... registered in a 3<sup>rd</sup> country and.....used into, within or out of the Community by an operator established or residing in the Community....shall comply with this Regulation" and that "Personnel involved in the operations of (such) aircraft" and "Operations of (such) aircraft" "shall comply with this Regulation".

Article 4 thus requires an EU resident operating a FRA to comply with EASA regulations, including those for personnel and operations. Note that 'foreign' (or '3<sup>rd</sup> country') registers include not only the US but all other non-EU registers that may be used for private aircraft (eg. the Isle of Man and various Caribbean registries).

In order to understand what this means, we need to address 4 questions:

- Who or what is an "EU resident operator" for the purpose of this regulation?
- What does compliance with EASA regulations mean for an FRA operator and pilot?
- What will the final form of the EASA regulations actually be?
- How will the regulations be interpreted and enforced in practice?



These questions are the subject of the next 4 sections.

## 2. The definition of an "Operator"

The Basic Regulation defines 'operator' as "any legal or natural person, operating or proposing to operate one or more aircraft". This is not particularly helpful.

Let us begin with an example which would typically apply to our members, that of a person who is an EU resident and who owns (as beneficiary of a US trust) an N-registered aircraft they fly in Europe on the basis of an FAA pilot certificate and ratings. We think it is obvious that this person (and not, for example, the US trust) is the operator of the aircraft in the conventional aviation usage of the term "operator".

Various conjectures as to how one might seek to avoid treatment as 'an operator resident in the EU' have come to our attention. An example would be an individual or group transferring the operation of an aircraft to an offshore company. However, if the ultimate beneficial ownership, source of funding, and controlling decision-maker(s) are a pilot or group of pilots resident in the EU, this author does not believe any offshore entity construct would succeed in avoiding the EASA regulatory net unless it is the intention of EASA and/or Member States to permit such a 'loophole'.

Our view on the EASA scope is quite simple. If you are resident in the EU and you want to fly a foreign registered aircraft in the EU, you will need to comply with EASA regulations (FCL, MED, OPS and others) unless you fly for a *bona fide* non-EU private, business or commercial operator. However, at present, one might choose to wait and see if clarification becomes available on this point before committing to any particular course of action.

## 3. Compliance with EASA regulations for an EU FRA operator

There are 3 sets of <u>new</u> regulation (EASA Part FCL, MED, & OPS) which will apply to EU FRA operators. They are in various stages of the rulemaking process; FCL is the most mature (a final legal draft has been published) whilst OPS is still in the consultation phase. In addition, there are the <u>existing EASA</u> maintenance and certification rules, which predate the Basic Regulation that extended EASA's scope to FRA. EASA recently published NPA (Notice of Proposed Amendment) 10/2010 to address how FRA will be subject to this existing regulation.

The drafts of EASA Part FCL and Part MED link to Article 4(1)(c) of the Basic Regulation (quoted in section 1 above) as follows:

- FCL/MED Article 1 states "This Regulation establishes common technical requirements for... the licensing, training, testing and medical certification of pilots involved in the operation of aircraft referred to in Article 4(1)(b) and (c) of the Basic Regulation".
- BR Article 4(1)(b) refers to EASA-registered aircraft, and 4(1)(c) applies to FRA operators resident in the EU
- Article 3 of FCL/MED goes on to say "Pilots referred to in Article 1 shall be: (a) qualified in accordance with the provisions of Annex I to this Regulation, hereon referred to as Part-FCL; and (b) medically fit in accordance with the provisions of Annex IV to this Regulation, hereon referred to as Part-MED"

There is thus a 'chain' from the definitions in Article 4 of the BR through to Articles 1 and 3 of EASA Parts FCL and MED which requires the pilots of FRA operated by EU residents to hold



EASA FCL qualifications and EASA medicals in the same manner and to the same extent as pilots and operators of EASA registered aircraft. A similar logic imposes the requirements of EASA OPS on FRA resident or established in the EU.

# 3.1 EASA Part FCL (Flight Crew Licensing)

EASA-FCL will likely take effect by mid-2012. There may be some form of transition period for FRA operators, but there is no firm commitment to this yet.

EASA-FCL deviates little from JAR-FCL. The key differences are

- EASA rules are EU law, and there is much less scope for individual countries to allow exemptions or variations than under the less formal JAA arrangements
- EASA-FCL's scope includes Balloons, Airships, Gliders; in fact any aircraft not exempt under "Annex II" (ie. microlights, some historic aircraft, gyroplanes etc)
- EASA-FCL includes a sub-ICAO "Light Aircraft Pilots' Licences" (LAPL), broadly comparable to the UK NPPL, but not some other national ratings such as the UK IMCr
- EASA-FCL imposes 24mth currency requirements for MEPL types
- EASA-FCL makes more of a distinction between single-pilot turbine aircraft types for the purpose of instructor and examiner qualification

EASA-FCL does have a provision for the "validation" of 3<sup>rd</sup> country pilot qualifications for circumstances in which an EASA FCL qualification is required. However, this validation is available only for one 12 month period, and typically requires passing both written exams and a skills test. It will be of little practical value to the typical FRA operator, other than in exceptional circumstances.

Therefore, according to the EASA FCL final Draft, a pilot in a EU FRA private operation will need an EASA FCL pilot certificate and associated ratings from 2012. In practice, this may involve the following 3 elements:

#### 3.1.1 The EASA PPL

- Holders of an existing EU national PPL ('national' in the sense of a full ICAO PPL issued pre-JAA by an EU country, not in the sense of the NPPL) will need to convert either now to a JAA PPL (which, upon the enactment of EASA-FCL, will automatically be treated as an EASA PPL) or directly to an EASA PPL when this is available. Both methods appear to be identical and straightforward, however, pilots may experience some delay if they attempt to convert at a time of peak workload for the NAAs during the transition period.
- Holders of a JAA PPL need not take any further action, except to keep their JAA licence valid and current
- Holders of FAA Private Pilot Certificates who do not have a full European PPL will need
  to go through a conversion process. At present, the JAA process for candidates with over
  100 hours experience requires 2 written exam passes (Air Law and Human Performance)
  and a skills test. A similar conversion method to an EASA PPL is described in Annex III B
  of EASA-FCL.

## 3.1.2 The EASA Class Rating (SEPL and/or MEPL)

For pilots with 100 hours experience in the relevant Class, a 3<sup>rd</sup> country Class Rating may be added to an EASA licence without any additional training or testing

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# 3.1.3 The EASA Instrument Rating

The requirement to hold an EASA IR is probably the single most significant impact of EASA's proposals on private EU FRA operators. This requirement can be met at present via the JAA conversion process available for any ICAO IR holder. The requirements are

- A pass in all 7 JAA IR theory exams. You need to take the exams via an Approved school, but you may not need to undertake any formal theory training
- A course of 15hrs flight training, of which up to 10hrs may be conducted in an FNPT2
- A pass in the JAA IR skills test

The "Getting the Rating" section of the PPL/IR Europe website has a number of articles detailing the conversion process written by members with first-hand experience. In the UK, it is possible to train and test on your own N-reg aircraft. (See, in particular, Mark Onyett's article at: <a href="http://www.pplir.org/index.php?option=com\_content&task=view&id=471">http://www.pplir.org/index.php?option=com\_content&task=view&id=471</a>)

In terms of the EASA conversion process from 2012, it is worth quoting from Article 7 of the final draft EASA-FCL document (my underline): "Applicants for Part FCL licences and associated ratings or certificates already holding at least an equivalent licence issued in accordance with ICAO Annex 1 by a third country shall meet all the requirements of Part FCL, except that the requirements of course duration, number of lessons and specific training hours may be reduced. The credit given to the applicant shall be determined by the competent authority of the Member State to which the pilot applies on the basis of a recommendation from an approved training organisation." Our evaluation of Article 7 is that the conversion credit as published is likely to be similar, or perhaps less generous, than the present JAA conversion. The recommendation from an Approved Training Organisation may mean that conversion requirements are dependent on a candidate's experience and demonstrated aptitude (eg. in a simulator assessment). It may be that conversion credits available vary significantly across countries, since this appears to be a matter of NAA discretion.

It is important to note that EASA's FCL008 working group has drafted proposals which should amend the final FCL document in respect of instrument qualifications and training. In particular, there is a proposal for a more flexible Instrument Rating course and a more relevant (reduced) theory syllabus. PPL/IR's Jim Thorpe is an active member of this group. However, we cannot be certain that FCL008's current proposals will be supported and implemented either in whole or in part. Jim has also proposed to EASA a set of options to allow existing FAA IR holders appropriate 'grandfathering' conversion mechanisms, but we have yet to receive any feedback on these.

The operator of a turbine FRA will have some additional items to consider in respect of Type and Class Ratings, which are addressed in Appendix 1.

A version of the final FCL draft, with our bookmarks and comments added, is available on the members' forum here: <a href="http://www.pplir.org/pplir/viewtopic.php?f=2&t=2600">http://www.pplir.org/pplir/viewtopic.php?f=2&t=2600</a>. This version is considerably easier to navigate than the EASA original, and all the most relevant items are highlighted.

#### 3.2 EASA Part MED (Medical)

EASA Part MED is parallel and complementary to the Part FCL, and will come into force at the same time. A private pilot in an EU operated FRA will need an EASA Class 2 medical, plus a Class 1 hearing test for exercising IR privileges.

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- Holders of a JAA medical need not take any further action, except to keep their JAA medical current. It will automatically convert to an EASA medical.
- Otherwise, a pilot will need to gain either a JAA medical now, or an EASA medical when these are available

For FAA medical certificate holders able to qualify for the appropriate JAA medical, this is a relatively minor issue. Many AMEs are able to issue both US and European medicals, although, predictably enough, the fees payable for the European examination are higher.

For FAA medical certificate holders who are unsure if they are able to qualify for European medicals, or who have previously been advised that they cannot qualify, this is clearly a matter of grave concern. We are not able to comment on the draft EASA Part MED with any authority. Our non-professional read of this document suggests that some of the worst JAA restrictions have been mitigated. In particular, it seems that visual and hearing standards may be more tolerant (eg. the uncorrected vision limits, and requirements for a hearing test). **Our advice would be to contact an AME as soon as possible, ideally one with a good understanding of the implications of the Part MED draft**. Members contacted via the PPL/IR forum may be able to offer advice and recommendations through private email in addition to posting on this subject.

## 3.3 EASA Part OPS (Operations)

For all private operators in Europe, EASA OPS is a new concept; the former JAR-OPS applied only to Commercial Air Transport. At present, a European N-reg operator is subject only to the FAA's Part 91, and any applicable provisions of national legislation in Europe (eg. the UK "Approach Ban"). EASA OPS has a scope that extends to all aircraft, private or commercial, subject to EASA regulation. This includes EU operated FRA, and excludes Annex II aircraft (microlight, historic, gyroplane etc).

The simplest way to think of this is as follows

- European national "air navigation orders" (ANOs) presently regulate the operation of private aircraft (ie. are the equivalent of 14 CFR 91)
- Some elements of these ANOs already apply to FRA
- This is not incompatible with 14 CFR 91, because 91.703 states "Each person operating a civil aircraft of U.S. registry outside of the United States shall....when within a foreign country, comply with the regulations relating to the flight and maneuver of aircraft there in force"
- Sometime after 2012, EASA OPS will supplant all the European national ANOs in respect of aircraft operation
- All of EASA OPS will then apply to FRA operated by EU residents

Thus, an EU resident N-reg operator will have to comply with Part 91 and EASA OPS, whichever is more restrictive in any specific instance.

EASA OPS is, at present, less mature in the rulemaking process. A 'first draft' (the NPA) was published in January 2009. EASA are now preparing changes and replies to the comments received on the NPA, which will be published in a CRD (Comment Response Document) in late 2010. PPL/IR Europe's Julian Scarfe is representing us on the EASA working group responsible for "non-complex non-commercial" OPS. Our reading of the EASA OPS NPA is that it does not threaten any major restrictions on FRA operators, but it may impose a significant list of potential issues. For an individual operator, we anticipate that the impact of these may vary from nearly immaterial to "somewhat annoying".



The original NPA and the Comment Response we made to EASA are available in the members' forum here: <a href="http://www.pplir.org/pplir/viewtopic.php?f=2&t=1963&hilit=EASA+OPS+NPA&start=15">http://www.pplir.org/pplir/viewtopic.php?f=2&t=1963&hilit=EASA+OPS+NPA&start=15</a>. The latter provides a summary of the potential issues which it isn't practical to include in this paper. An example of an issue is the imposition of a 10,000ft oxygen rule in place of the FAA's 12,500ft rule. On the positive side, EASA have sensibly avoided some needless duplication, so FRA Letters of Authorisation from the State of Registry (eg. PRNAV or RVSM) will be acceptable under EASA-OPS.

We should recognise that whilst EASA-FCL was a mild rework of JAR-FCL, the OPS concepts for non-commercial operators are completely new to European regulation; therefore we expect a greater degree of change between the initial NPA and the final Opinion. We will keep members updated as the OPS process progresses.

Operators of turbine FRA should also refer to Appendix 1 of this paper.

**3.4 Other EASA regulation which predates the 2008 Basic Regulation (eg. Maintenance)** EASA Part M governs the maintenance ('continued airworthiness') of aircraft regulated by the EU. Part M was published well before the 2008 Basic Regulation extended the scope of EU regulations to cover resident FRA operators. This raises the question of how FRA operators will be expected to comply with Part M (eg. will an N-reg aircraft need to meet both the requirements of the FAA <u>and</u> all the maintenance requirements of Part M? Will all parts need EASA approval? Will all 337 modifications need to be recertified as EASA modifications?)

In August 2010, EASA published NPA 2010-10, which proposes amendments to Part M that address this question. EASA's proposal is to create a new Part T to apply to FRA (T for 'Third Country'). The Part T proposals should come as relief for most EU FRA operators. **In essence, the requirement for 'non-complex' aircraft (ie. almost all piston powered and single-engine turboprop aircraft) is that the State of Registry maintenance requirements shall be observed.** One note of caution is that it seems an EU operated FRA *must be a type which holds an EASA Type Certificate*, and the operation of specialised turbine and piston types that were never certified in Europe may be at risk as a result. NPA 2010-10 is an early draft with a few opaque elements and apparent inconsistencies; we will keep members appraised as we learn more.

# 4. What will be the final form of the EASA regulations, as they impact EU FRA operators?

The present status of the EASA regulatory process can be summarised as follows:

	Initial drafting	NPA published	CRD published	Opinion published	EU Law enacted
Basic Regulation	✓	✓	✓	<b>√</b>	✓
Part FCL	✓	✓	✓	✓	
FCL008 (IR)	✓				
Part MED	✓	✓	✓		
Part OPS	<b>✓</b>	✓			
Part T (NPA 2010-10)	<b>✓</b>	✓			

Clearly, only the Basic Regulation is in its final form, as EU law recorded in the Official Journal. We think it unlikely there will be any more major changes to Part FCL, except that, in principle, FCL008 *may* succeed in amending the requirements for the IR to permit a more flexible



'competence-based' training approach and a theory syllabus which is more relevant to the incremental privileges granted by an IR. Transition arrangements for existing FAA IR holders are something that EASA appears to have discretion over, and we have suggested a number of options in this respect. **However, the requirement for FRA operators to acquire an IR is presently the subject of lobbying and debate at the EU level**. A decision on the subject has been deferred to December 2010, and a major change is possible from the EASA proposals. Opinions vary widely in terms of how likely this is, and we have no insight into the political workings of the EU in order to judge either way.

Part MED still appears to have one or two unresolved issues (for example, our Comment on mitigating the Class 1 Audiometry requirement for an IR remains "open"). However, we do not have the expertise to evaluate the current proposals properly. Beyond the view that EASA-MED seems to have some genuine improvements over the JAA regime, we can only repeat our advice: to consult an AME if you have any concerns about qualifying for a European medical.

Part OPS, as mentioned above, is still EASA 'work-in-progress'. Its present draft does not have any especially difficult implications, and there is some hope that the final versions will be better suited to the needs of non-commercial operators. One change may be in the definition and interpretation of "commercial operation"; at present, business flying paid for by an employer and cost-sharing are in a grey area under the Basic Regulation.

Part T (the "Part M for FRA") is brand-new proposal. We welcome the choices EASA has made, with the exception of the requirement for European Type Certificates. However, there is a risk that Part T is pushed in a more onerous direction by non-FRA stakeholder feedback. Therefore, we will remain slightly cautious until the final Opinion is published.

In summary, we believe the current outlook available for EASA regulation provides a 'base line' (or worst case) for what EU FRA operator will need to comply with after 2012. The outlook may improve if lobbying efforts underway are able to mitigate it.

# 5. Interpretation and enforcement of EASA regulations as they impact EU FRA operators

The question of enforcement is easily dealt with. The EASA regulations impacting FRA are inherently highly enforceable. Whether an individual holds an EASA licence or medical is a matter of record. We do not believe the question of whether an EU resident is the operator of an aircraft will be legitimately avoidable through offshore vehicles if EASA seeks to enforce its rules on the typical N-reg owner/pilot.

The question of 'interpretation' is difficult in a few specific areas:

- In FCL, the mapping of pilot qualifications between the FAA and EASA is far from "one-to-one" in respect of many GA turbine types (see Appendix 1) and, therefore, we think there are some significant questions of interpretation unresolved
- In Maintenance and Part T, beyond the outline of the draft regulation, we cannot be certain that additional difficulties won't emerge in future NPAs or EASA rulings. For example, we would interpret Part T as permitting an EU FRA operator to fit parts and modifications in accordance with State of Registry, rather than EASA, requirements. However, Part T does not state this directly, and there is always the risk of unforeseen interpretation in technical areas not explicitly dealt with in the NPA text.



### 6. Summary and longer-term outlook

EASA's proposals are clearly not welcome to EU pilots who may rightly claim to have an excellent safety record operating under 3<sup>rd</sup> country registers that are better suited to their needs. EASA has admitted that Europe over-regulates GA, but has so far failed to provide any remedy other than for the lighter Sport and Recreational segments.

On balance, the EASA outcome is not as disruptive as it might have been. Resident FRA have not been 'banned' from Europe. Maintenance, parts and modifications should not require a pointless duplication of 3<sup>rd</sup> Country and EASA expenses and approvals. However, the EASA IR is clearly a significant requirement, and a quite unnecessary one for pilots flying N-registered aircraft and qualified under the FAA system – a system whose safety record is second to none, and which governs probably 99% of the worlds' private instrument pilots. The potentially serious concern about EASA medicals is something we can't evaluate, hence our recommendation to seek AME advice.

In the longer-term, we believe there are grounds to be positive about EASA's impact on GA. The present set of regulations is the result, to an extent, of compromises imposed by a political agenda and political timetable. EASA has had a relatively short time to produce perhaps the largest volume of regulatory material in aviation history. However, given that EASA has delivered nothing, so far, which alleviates the burden of European over-regulation on mainstream GA, the decision to also implement licensing requirements on FRA pilots is something the FRA community considers unacceptable. AOPA and other aviation industry stakeholders are vigorously lobbying the EU, and we hope these efforts will be more successful than the EASA consultation process, where FRA feedback was 'noted' but not acted upon. EU law makes a provision for bilateral acceptance of licences with a 3<sup>rd</sup> country, and probably the most welcome outcome would be for the EU and USA to sign such a treaty, settling the whole FRA issue more permanently. However, such a treaty is subject to broader political issues, described by Bruce Landsberg of AOPA in the article here: http://blog.aopa.org/asfblog/?p=1182

# 7. What should a current or prospective EU FRA operator do?

Given how hard it is, at present, to forecast the outcome of the regulatory process, a reasonable answer may be 'wait and see'. Some scenarios would favour undertaking the present JAA IR conversion and there are some in which the EASA requirements may prove much less onerous. Our only firm advice is that FRA pilots should follow the developments closely. 2012 seemed a very long way away when the first EASA consultations started in 2006; it is now less than 15 months (although a 2 year transition period beyond 2012 seems likely). An IR conversion could easily take a year for a candidate choosing a pace to suit work and family commitments.

For those considering buying an aircraft on the FAA register, the decision is less clear-cut. Excellent as it is, the N-reg does impose some difficulties (trust requirements, TSA and Visa requirements for training, the need for a DfT Waiver for paid training in the UK, the limitations on cost sharing and commercial work). Without the accessibility of the FAA IR, the FAA register may be less attractive for newer, higher volume or more standardised aircraft. For older and more specialised types, the availability of FAA parts and STCs may still be a significant benefit.

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#### **APPENDIX 1: EU operation of turbine FRA**

### EASA pilot qualifications and certification for turbine aircraft

There is a significant difference between the EASA and FAA treatment of lighter turbine aircraft: turboprops under 5.7t (and the piston Piper PA46) require a type-specific EASA class rating (in effect, a type rating) whilst under the FAA system they require only the appropriate ASEL or AMEL class rating (and, typically, a high attitude endorsement)

Note also that, under EASA, applicants for a type-specific class rating in a 'high performance aircraft' (HPA, a definition which includes most common turbine types, except the Cessna Caravan) need either a pass in the ATPL exams or a pass in the HPA theory exam. The holder of an FAA ATP, or the holder of an FAA CPL who has passed ATP written exams, is exempt from this requirement. Applicants for a multipilot aircraft type rating must have a pass in the JAA/EASA ATPL exams.

Article 7.4 of EASA-FCL does offer EU operators of a turbine FRA a useful concession:

"Aeroplane or helicopter type ratings may be issued to holders of Part-FCL licences and associated ratings or certificates that comply with the requirements for the issue of those ratings established by a third country. Such ratings will be restricted to aircraft registered in that third country."

Therefore, if you currently fly an N-reg Citation Mustang, whilst you will need to get an EASA pilot licence and multi-engine IR, your FAA Mustang type rating needs no conversion. However, this example is the simplest one, because *light jets* are treated identically under the FAA and EASA systems, ie. as aircraft requiring a type rating.

In many other cases, it is not clear what the EASA requirement will be. If you fly an N-reg turboprop under 5.7t (eg. Piper Jetprop/Meridian, TBM 700/850, King Air 90/200) no Type Rating is required or available under the FAA. Under EASA, you need a type-specific class rating. In this case, it is not clear to us whether Article 7.4 will mean that you do or do not need to complete the EASA training.

A turbine aircraft is clearly a significant investment, and we would advise owners to be aware of the potential need to comply with the EASA qualification and certification requirements.

[this section has been edited to correct a mis-statement that EASA does not permit single-pilot certification for aircraft over 5.7t, for which the author apologises. To my knowledge, single-pilot aircraft over 5.7t (eg. King Air 350, Citation CJ3 and 4) are treated very similarly under FAA and EASA certification.]

#### Private operation of "complex" FRA under EASA

The EASA definition of "complex" aircraft includes all turbine types except single-engine turboprops. The 2008 Basic Regulation introduced this concept in order to impose an extra layer of regulation on advanced aircraft operated privately.

This introduces two main differences for an EU resident operating a 'complex' FRA relative to the analysis in the main text of the paper:

- (i) You will need to comply with the "complex non-commercial" section of EASA OPS, rather than the "non-complex non-commercial" one referred to in 3.3 above. This imposes some administrative, planning and performance requirements that do not appear to be particularly onerous. They may, however, tip an owners' preference in favour of a single-engine turbine type, so it is worth reading the EASA OPS NPA in full if you are considering such a purchase
- (ii) You will need to comply with the "complex non-commercial" section of Part T (maintenance). Again, the additional burden is modest: you may use FAA maintenance methods and parts, but compliance needs to be documented by an EASA CAMO and the work carried out by a qualified organisation