

# EC hushkit ruling faces fierce opposition

Proposals by the EC to cap hushkitted aircraft operating in EC airspace are being attacked on several fronts. Objections have been voiced about the absence of an economic impact study prior to the ruling, the EC breaking with agreed ICAO noise standards, there being no definition of what noise emissions the EC requires and Chapter 3 modified aircraft often having lower noise emissions than new aircraft.

The EC's proposed rule to cap the number of Chapter 3 modified aircraft operating in EC airspace after April 1999 (see *Confusion over European hushkit ruling, Aircraft Commerce, November/December 1998, page 4*) is facing fierce opposition. The objection to the proposed rule is mainly originating from the US.

The backlash the EC has had to deal with is centred around a single objection: that the EC's ruling will have an adverse effect on a number of US products, on the value of hushkitted and re-engined aircraft and that it will put economic pressure on many airlines.

The feeling about the ruling is so strong that one company, Omega Air of Ireland, is considering taking out a lawsuit against the EC as soon as it passes its law.

The EC ruling is being passed on the basis that hushkitted aircraft represent old technology and have higher noise emissions than Chapter 3 manufactured aircraft. The argument against old technology is instantly flawed by the fact that 1974-manufactured A300s or 1970-

built 747-100s could continue to operate even though both aircraft are older than the 1988-built 737-200s, which would be banned after April 1999.

The ruling would prevent any un-modified aircraft in EC countries remaining in the EC after April 1999. It would also prevent the number of hushkitted aircraft flying into the EC from outside states from increasing. As of April 1999 onwards all increases in fleet capacity for airlines flying in EC airspace can only take place with Chapter 3 manufactured aircraft.

The non-Chapter 3 aircraft types that will be affected include the JT3D-powered DC-8, DC9, 707, 727, 737-200 and BAC 1-11. There are many small airlines, particularly freight operators, which have fleets and operations based entirely on these aircraft.

A ban would also damage the market value of the aforementioned aircraft, since the market for them would be diminished.

The parties objecting to the proposed rule are annoyed because the aircraft affected already meet Chapter 3 requirements. Indeed, in many cases Chapter 3 modified aircraft are claimed

to meet the noise emission requirements with greater margin than Chapter 3 manufactured types.

Chapter 3 and Stage 3 noise requirements are set by the International Civil Aviation Organisation (ICAO). The EC apparently tried to get ICAO to change Chapter 3 noise requirements. However, the noise emissions that ICAO agreed are set to endure until 2020.

Having failed to get ICAO to change its position with respect to Chapter 3, the EC passed the directive of its own accord. Subsequently, airlines have made fleet plans based on ICAO's timetable and have modified aircraft accordingly. The EC's break from its agreement with ICAO on Chapter 3 noise emissions is another source of annoyance for US companies and hushkit and re-engining providers.

The EC agreed the new hushkit regulation at the beginning of October 1998.

Omega Air, which has a re-engining project for the 707 with the JT8D-200, is considering taking out a lawsuit against the EC. This is on the basis that, under its own rules, the EC is supposed to undertake an economic impact study. Omega Air's legal position is that the EC did not do this. Had it done so it may have appreciated the economic impact it would have had on many airlines which depend on low-cost aircraft.

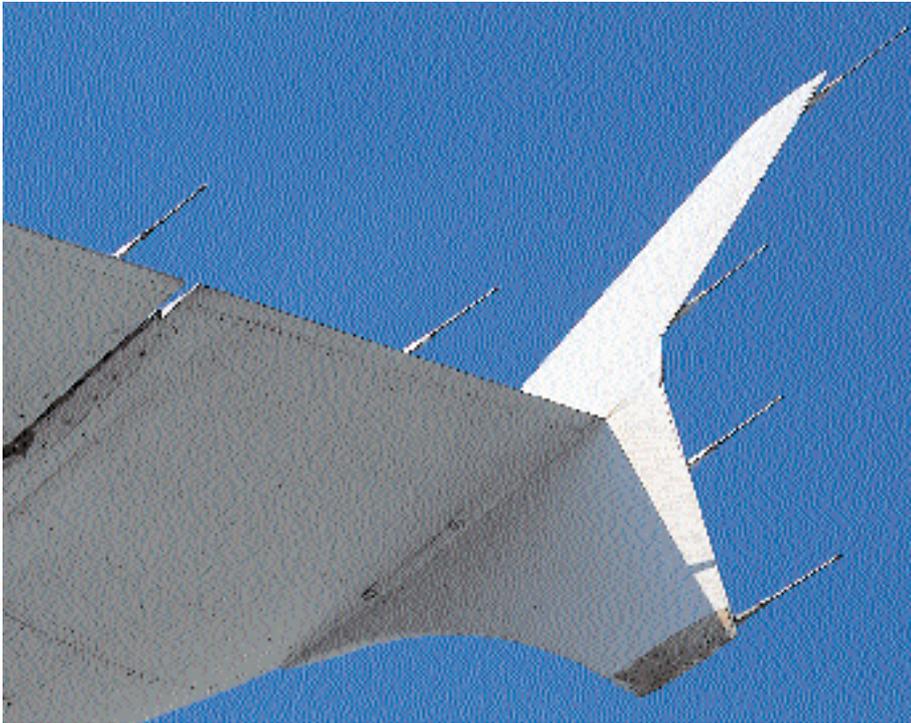
Another of Omega Air's objections is the fact that the ruling also affects re-engined aircraft. The ruling does not, however, have blanket coverage for all re-engined aircraft, but has set an engine bypass ratio threshold of 3.0:1.0. Re-engined aircraft with engines that have a bypass ratio less than 3.0:1.0 are affected, as is the Omega's proposed JT8D-200-powered 707. The CFM56-2-powered DC-8-70 series, however, is not. The JT8D-200 and CFM56-2, in fact, only differ in bypass ratio by 0.1:1.0. This fact has further angered US companies, which suspect that the bypass ratio threshold has been purposefully chosen to bias European products and to prejudice US ones.

Annoyance has also been caused by the fact that the EC relied on advice from a group known as Abatement Noise Caused by Air Transport (ANCAT) to make a judgement on the proposed ruling, rather than take advice from experts which analyse noise issues. In its ruling the EC has also failed to state what level of noise emissions it now requires of aircraft. Instead, it appears to have arbitrarily acted against hushkitted and re-engined aircraft.

The Federal Aviation Administration (FAA) is said to be furious. The ruling could apparently throw bilaterals as well as joint manufacturing agreements with the Joint Airworthiness Authority (JAA) out of the window. The US companies

*The effects of the EC's proposed ruling would be felt globally, reaching Africa and South America.*





*Will the A318's launch spur a PW8000-powered A320 family which will leave all other narrowbodies behind?*

that have grouped together to oppose the law are now urging the US government to start a trade war.

The US companies fighting the ruling include: Nordam, FedEx, Burbank, Quiet Skies Inc, Northwest Airlines, Delta Airlines, Avtec, BF Goodrich, 7Q7 and Omega Inc.

Airlines among the group have a large number of Chapter 3 modified aircraft which they will need a market for at some point. One example is Northwest, which is said to be hoping to sell some DC-9s into Romania. Such a transaction would need to be made so that Northwest could then order new aircraft such as the A318. If the ruling is passed, however, Romania will not be able to buy hushkitted DC-9s.

"Pratt & Whitney has declared loyalty to hushkitters to make the point that the EC's ruling is unacceptable," says, Sandy Murdock, of Shaw, Pittman, Potts and Trowbridge, law firm acting for Nordam. "The US government is also prepared to escalate support for those opposing the ruling. Some European airlines have appreciated objections made by US companies and might also oppose the ruling. The point is this ruling is the thin end of the wedge. It could further lead to a hushkit ban in Europe and the same in noise-sensitive areas like California.

"The US is very supportive of having a Stage 4 noise emissions standard. The basis of achieving Stage 3 has been the hushkitting of aircraft. If hushkitted aircraft are damaged then it could make it more difficult to achieve Stage 4.

"If the EC goes ahead with its ruling

some US carriers may consider moving some of their hushkitted fleets into European subsidiaries, with European ownership, before April 1999," explains Murdock. "That is, the aircraft would be given European registrations and then flown in the US for a few more years. It is legal to fly foreign registered aircraft in the US if they are controlled by a US airline. This would then make it possible to re-market them in Europe at a later date."

A crucial point that Murdock makes is that the EC has never demonstrated how the environmental situation would be improved by its ruling. "Some hushkitted aircraft are actually quieter than some Airbus aircraft," says Murdock.

The EC's ruling is even less clear on aircraft that are Chapter 3 modified without a hushkit. Dugan Air Technologies and Raisbeck Commercial Air Group both have systems for the 727 which rely on aerodynamic modifications to make the aircraft Chapter 3 compliant.

Dugan Air's system improves all aspects of the aircraft's operating performance. Raisbeck's system works on a similar basis. The aircraft uses raised flaps on approach and aerodynamic modifications.

"The problem with the EC's ruling is that it has chosen to avoid having a technical definition of what noise emission levels it is trying to achieve in this instance," says Jim Raisbeck, president of Raisbeck Commercial Air Group. "What is likely to happen is that the EC will have to define a noise footprint so everyone is clear on what is an acceptable noise level.

"With our modification, the 727-200

at maximum landing weight has a lower noise emission on approach than a PW2000-powered 757-200; which is the quietest aircraft Boeing has ever certified. The 727-200, with our system, has a three decibel lower noise level than ICAO's Chapter 3 limit. The EC must have a definition of what is too noisy. It does not seem to care about an aircraft's noise footprint, which it should do. Instead it cares about engine bypass ratio, which it should not do."

Raisbeck cites further examples of how the EC's ruling seems to be arbitrary and not linked to actual noise emissions. "We obtained definitions of acceptable noise emissions from the EC. It stated there was to be no exceedence over Chapter 3 requirements and there had to be a minimum of less than five decibels from all of three measuring points. The EC has talked about increasing this to at least 12 decibels lower than Chapter 3 from three measuring points after 2002, says Raisbeck. "If we modify a 727-200 with the Feasi hushkit and our system we can meet these requirements quite easily. I cannot see why this is unacceptable to the EC."

## PW8000-powered A320 on the way?

With the launch of the PW6000-powered A318 underway, will PW8000-powered A319/20/21s follow?

Now the A318 is firmly launched, and with an additionally large order rumoured to be placed soon by Northwest, the pressure to equip the remainder of the A320 family with the PW8000 will have increased.

The PW6000 and PW8000 are geared fan engines which will have far lower specific fuel consumption than current powerplants in the same thrust class. This is because the geared fan technology allows the engines to have an extremely high bypass ratio.

The spin-off benefits of this are lower noise and NOx emissions. The PW6000 and PW8000 will also have fewer parts and lower exhaust gas temperatures than conventional turbfans. This will also lead to lower maintenance costs.

The PW8000 is thought to offer a 10% lower fuel burn and 30% less engine-related maintenance costs than its current counterparts. The A319/20/21 equipped with the PW8000 could therefore have longer range, or if preferred, lower gross weight for the same range capability. This also means a stretch development of the A321 could avoid requiring a new, larger wing and still have the A321's

range.

The improvement in cash operating costs will be too good for potential customers to ignore. However, the improvement in operating costs would also have a negative impact on A319/20/21 market values. With the A320 family already taking large market share and with orders from the 737/757 family, the PW8000 is bound to widen the gap between Airbus and Boeing narrowbodies. The service entry for a PW8000-powered A320 is rumoured to be targeted for the 2003 to 2005 period.

With such attractive features, the PW8000 is sure to generate pressure from airlines that would put Pratt & Whitney back in the narrowbody aircraft market.

## FAA certification for Russian aircraft

Federal Aviation Administration (FAA) certification of Ilyushin's IL-103 five-seat light aircraft on December 9th 1998 marks the opening of the door for Russian and CIS aircraft to western registers and therefore western markets.

It will be followed, probably in February 1999, by the IL-96T, the PW2037-powered freighter version of the IL-96M. The aircraft can carry up to 375 passengers in an all-economy layout, or about 300 in a tri-class configuration. FAA spokesman, Dennis Cooper, said that after seven years of intensive work, the FAA and the CIS certicator, the MAK, are drawing close to the point where each other's certification may be recognised by both sides.

He described the IL-103 certification as giving other CIS designers and manufacturers the opportunity to apply, through the MAK's aviaregister, for FAA certification. Tatiana Anodina, chairperson of the MAK, plans to work towards a similar arrangements with European authorities.

Although neither side will comment directly, it is unlikely that the certification process for the IL-103 or the IL-96T has been paid for by the Russian side. Although Ilyushin is not in as much financial difficulties as other Russian aviation industry companies, it does not seem probable that it is able to come up with the several million dollars needed to complete the two programmes.

US sources indicate the certification of the IL-103 and IL-96T were essentially a goodwill gesture by the US Government, anxious to reduce criticism of the uneven situation in which most major US commercial and executive aircraft have

been certificated in Russia. Until now, no Russian/Soviet/CIS aircraft had up been certified by the US authorities. This door of opportunity will now be closed with the passing of a new law requiring certification of aircraft to be paid for.

Europe's JAA already requires that certification should not be a profit source, but should merely cover its costs. Thus, until money is paid to start certification work, nothing will happen. Little progress has been made on the Tupolev Tu-204, or any other Russian/Soviet/CIS aircraft in Europe. The Yakovlev Yak 40 was, however, certified in Germany and Italy in the 1970s. But, since it is a Chapter 2 aircraft it would no longer be accepted on any European register.

The US government is willing to encourage other Russian/CIS aircraft which meet FAA standards to achieve FAA certification. In particular, light aircraft, cargo and utility aircraft would be welcome to apply, but it will be some time before passenger aircraft would be approved.

As is well known, Aeroflot-Russian International has placed an order for 20 IL-96M and -96Ts. Funding has been arranged through the US ExIm Bank with a consortium of western banks. These financiers have expressed a preference to see the first three IL-96Ts that are delivered to be on an acceptable western registry. It is likely that they will carry US or Bermudan registrations when they enter service.

All this marks a first step, although a significant one, on the question of the acceptance of Russian/CIS aircraft on the world market. A lot more still needs to be done.

For example, there is a lack of information on matters, such as safety levels, operational reliability, technical

and maintenance procedures and standards, and this needs to be clarified.

In fairness, the FAA has monitored these and other areas closely in its seven-year programme. Today it is important that Russia's industry should ensure that the information is disseminated to potential customers, financiers and insurers. If this does not happen there will be little chance of any sales.

The industry will have to address the major question of product support and after sales service. These are two areas in which Russian industry has no reputation and in which customers will need considerable assurance.

It will be vital to ensure that adequate maintenance will be available wherever aircraft are based, including an adequate storage facility with a wide range of spare parts. Western airlines will not tolerate lengthy delays for necessary spare parts.

The question of price and delivery of aircraft and spares will need to be resolved. If prices are at a western level, it will be difficult to gain customers. If they are too low then western industry could seek to invoke 'anti-dumping' legislation.

Western lessors and financiers will have major concerns on the question of aircraft values right down to long-term residual values. With the Russians having, at best, a very limited track record, this problem will take some time to work out.

If western airlines, financiers and insurers can be satisfied with solutions to these issues, then many would be happy to see a third aircraft supplier supply the world's airlines. This would improve competition and help ensure value for money in the supply of aircraft.

Certification opens the door for the Russian/CIS aviation industry, but it is still very much up to the industry to make aircraft acceptable. AC



*First step into the west for the IL-96, but what now?*