

VLJs in Europe: BBGA Sees Challenges in Integrating VLJs

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The members of the British Business and General Aviation Association (BBGA) cover all aspects of Very Light Jets (VLJs) operations and the Association has given considerable thought on how the VLJs will be integrated into business and general aviation. It is recognised that in civil aviation there are already small turbo-jet aeroplanes, with similar performance to that proposed for VLJs, operating in the private role with single pilots and the military have operated high performance single pilot jet aeroplanes for many years.

VLJs by definition are aeroplanes with a maximum all up weight not exceeding 10,000 lbs, powered by turbo-jet engines and capable of being operated by a single pilot. There has been considerable publicity recently on VLJs that has mainly portrayed who the manufacturers are, what their products are likely to be and what they are capable of doing. The range that most of the VLJs are being designed for, and their short field performance, makes them very suitable for European operations and opens up many airfields that are otherwise not available to turbo-jet aeroplanes. However to get to most European destinations from the United Kingdom will require transiting what is probably the highest air traffic density airspace in the World. As yet no VLJ has been certificated by the European Aviation Safety Agency (EASA) but it is anticipated that by the end of 2006 some will be.

The numbers of VLJs that are expected to be operated within the UK, Europe and beyond are difficult to define but it is not expected that there will be a sudden influx. One of the driving forces for the VLJ is the low purchase price when compared with current small turbo-jet aeroplanes and this will be attractive to anyone who fancies owning and flying a jet aeroplane as well as those who wish to run an air taxi type business or reasonably cheap corporate operation.

With access to main airports becoming increasingly difficult for non-airline operators, business aircraft are making full use of alternative lesser-used airfields. VLJs, with their proposed good field performance, will offer even more airfields than those operated for the larger business jets. This will add to the flexibility for those wishing to have an airfield close at hand for residency and business purposes so saving considerable time and hassle with the procedures at the larger airfields. However operators will need to be careful when flying from short runways as the take-off and landing performances could become critical.

Accommodating the VLJs on the ground will need careful planning as they will require hard standings for parking and as they have sophisticated technical equipment will need hangarage to avoid the rigours of the British weather. Hangarage at most UK airfields is already at a premium and certain airfields may not have problems in getting planning permission for any additions but local planning authorities may not look kindly on others. With security regulations on aircraft operations being tightened by the European Commission (EC) and Department for Transport (DfT), vigil on the security of the aircraft on the ground will be necessary as the potential damage that a VLJ could do to any target by one stolen or in the wrong hands would have tremendous repercussions.

As far as maintenance is concerned there should be few problems as most VLJs will be certificated under Certification Standard (CS) 23 and parts of CS 25, will require maintenance by Part 145 facilities and maintenance organisations should be able to cope provided that they can overcome the perennial problems of labour shortages and availability to Type Rating Course for the VLJs close to their place of business.

JAR-FCL requires that anyone wanting to fly a turbo-jet aeroplane must obtain a type rating. For Private Pilot's Licence (PPL) holders this will require specific studies in various aspects of the operation of high performance aeroplanes and a minimum of 200 hours flying experience. To get the most out of the VLJs capabilities, PPL holders will also need an Instrument Rating (IR). It is expected that any holder of a Professional Pilot's Licence who is aiming to fly a VLJ for any purpose will already have an IR.

The VLJ manufacturers have already stated that they will insist that anyone wishing to acquire one of their products must complete a structured course on the aeroplane and be tested to an acceptable level of competence before the aeroplane will be released. Of concern is the second hand market that will ultimately appear for VLJs and how the competency of pilots will be assured before they fly these aircraft; this is an area where BBGA believe a pro-active Trade Association can help.

For some pilots graduating from light piston engined aeroplanes there will be a tremendous difference in operating a VLJ. The complexity of all the avionic equipment will demand considerable knowledge and concentration that even experienced pilots are now finding a handful. Added to this will be the higher performance in speed, rates of climb and descent. Single pilot operations in dense controlled airspace could become very demanding and less experienced pilots could find difficulties in coping. There could be a case for restricting certain classes of airspace to two pilot operations; this has already been done at London City Airport.

Maintaining competency on VLJs could become a major problem for private pilots, as it is essential that they are up-to-speed on all facets of the operations within the congested European airspace.

JAR-OPS 1 requires all commercial air transport (CAT) operations in turbo-jet aeroplanes at night or under instrument flight rules (IFR) to have two pilots and it is felt that passengers would only be content if this was the case. As VLJs will be certificated as single pilot aeroplanes it is expected that some will lobby to have this requirement amended; it is felt that a very strong safety case, would have to be made before there are any changes in this requirement. For corporate operations the company may well dictate that all flights carrying company passengers will be crewed by two type rated pilots. Currently there are PPL pilot/owners who fly business jets and always have another rated pilot, this is a wise safety precaution and may well become the norm.

There are many insurance companies that will only insure turbo-jet aeroplanes when flown with two rated pilots but it is known that others will accept single pilot operations but with a higher premium. This may well be the incentive to always fly with two type rated pilots. Meanwhile the insurance industry will need a "steer" on where to set its premiums in the light of training and operating of VLJs.

The point has been made that when flying VLJs with two pilots, both must be type rated. Taking an inexperienced pilot as a second pilot to meet any regulatory requirements would only increase the workload of the pilot as he would have monitor all actions by the second pilot as well as dealing with his own duties; therefore it is essential that if two pilot operations are required both pilots must be type rated.

The avionic equipment that is being installed in VLJs will enable them to operate in all classes of airspace and many of the aeroplanes will be capable of flying at all levels used by CAT and similar air traffic. As the numbers of VLJs increase, airspace managers may pressure to restrict their operations and this could be detrimental to business aviation as a whole. To do this would require a considerable change in legislation as it would impinge on rights of operators to use all the airspace subject to meeting all the requirements.

BBGA encourages all forms of business aviation and welcomes the introduction of VLJs into this sector of the aviation industry. It seeks to ensure that anyone wishing to operate VLJs, whether as CAT, corporate or privately, can do so without difficulty or hindrance and so enhance the growing reputation of, and need for, business aviation. It is important that VLJs enter service with the minimum of constraints and at the same time ensure that present safety levels are maintained and even increased.

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