

RESPONSE TO NPRM 10070S

MANDATORY FLIGHT SIMULATOR TRAINING



OVERVIEW

The NPRM states as its objectives that the proposed rules are meant to *'provide a more thorough flight training and checking regime for pilots of large aircraft'* and to *'implement a safer flight training environment for pilots of large aircraft'*.

Large aircraft are currently well catered for in Australia with simulators available for all types currently in use with the major airlines. Aircraft with over 70 seats have simulators readily available and training in aircraft is not done in this size of aircraft or above. However this is not the case for smaller aircraft as used by regional airlines or charter operators and the NPRM addresses this by mandating simulator training for aircraft down to as little as 10 seats. Many aircraft in regional operations are not large or complicated yet are still captured in this NPRM. This is not the case in other countries, including the examples given in the NPRM.

The graduated approach in the proposal is supported by the Regional Express group (Rex) in that it recognises the lesser capability of the smaller operators and the significant impact this proposal will have on marginal regional airlines and charter operators. However there is an inconsistency with respect to the MTOW limit used in key change proposal 1.

The Rex group supports the principle of using simulators and has done so for many years with the SAAB and Metro operations. However the impact of this proposal needs careful assessment. Rex has long maintained that a key aspect of safety for any operator is a healthy balance sheet and all proposals that increase operational cost must be examined with this extra burden in mind. In this regard it is felt that a Regulation Impact Statement is essential.

KEY CHANGE PROPOSAL 1

Key Change Proposal 1: For aeroplanes and helicopters certificated to carry 20 or more passengers, or with a MTOW of greater than 8,618 kg, and where an appropriately qualified flight simulator or FTD is available in Australia or overseas, any non-normal exercise must not be performed in the actual aircraft

The NPRM contains inconsistencies in key change proposal 1 with respect to the MTOW limit used. The Westwind 1124 aircraft operated by Rex subsidiary Pel-Air has a maximum takeoff weight of 10,660 kilograms and therefore falls under the mandated simulator requirement in Key Change Proposal 1 applicable to large aircraft.

The rationale put forward by CASA for using MTOW as a trigger for mandated simulator training is that aircraft get more complex as MTOW increases. This is not the case in this example where the Westwind is no more complex than the Learjet 35 aircraft operated by Pel-Air and other smaller jets that fall below the 8618kg limit. Rex agrees with the graduated approach adopted by CASA but feels that the MTOW limit is inconsistent with the passenger limit. Rex argues that the MTOW limit should be abandoned altogether and only the passenger limit be used. Alternatively the MTOW limit could be replaced by a payload limit as in the New Zealand model in order to be more consistent. Using equivalent figures to the New Zealand 30 seat requirement would mean a payload limit of around 2300kg.

CASA acknowledges that a graduated approach based on size is appropriate as operators of aircraft with less than 20 seats may not be in a position to undertake training overseas whereas larger operators that have aircraft with more than 20 seats should have such a capacity. In this respect the MTOW limit of 8618kg is inconsistent as a small operator of a 10 seat jet which exceeds 8618kg MTOW does not necessarily have any more capacity to train overseas than the operator of a 19 seat commuter aircraft.

There is also a glaring inconsistency with regard to safety standards in that non-normal asymmetric exercises are quite critical in 19 seat turbo prop aircraft like the Metro but not so in a corporate jet with rear fuselage mounted engines which has much greater controllability and markedly better one engine inoperative climb performance. CASA have quite rightly quoted several instances of training accidents or incidents involving turbo prop aircraft but have not made reference to any involving corporate jets. This is because they are extremely rare or non-existent. It does not make sense to apply more restrictive requirements to 10 seat jets than to 19 seat commuter class aircraft. There is absolutely no safety case in doing so.

The only available simulators for Westwind aircraft are in the United States (Wilmington, Delaware and Orlando, Florida). The cost imposition of transitioning to 100% simulator training in overseas based facilities is prohibitive and will remove the Westwind from the marketplace. Rex has provided some basic cost figures in appendix 1 which show that key change proposal 1 will add \$328K p.a. in costs to the Pel-Air operation.

The two primary competitors to Pel-Air within the light jet/aeromedical marketplace operate Lear 35 aircraft and Beechjet 400A aircraft, both of which fall under the weight and passenger seat limits in key change proposals 1 and 2 and will therefore require no simulator training. Both aircraft types fulfil the same tasks, carry the same passengers and operate for the same clients in the marketplace, yet only the Westwind is required to conduct any simulator training.

Rex believes that aircraft such as the Westwind, whose MTOW is greater than 8618 kilos but which is certificated to only carry between 10 and 19 passengers, should be subject only to Key Change Proposal 2. The adoption of the 8618kg MTOW limit creates greater difficulties and costs in Australia than it does in Canada which has easy access to simulators of many types in the United States. What is appropriate in that jurisdiction is not necessarily appropriate for Australia.

It is noted that CASA has adopted far more restrictive requirements than all the examples quoted in the NPRM and if these are adopted Australia will have the most stringent simulator training requirements in the world. This puts an added cost burden on smaller aircraft operators in Australia that have to undertake extensive travel to access general aviation or commuter aircraft simulators in the northern hemisphere. The distances involved mean that time and disruption to operations with crews off line are just as significant as the direct monetary impact.

Training is not confined solely to Proficiency checks and instrument rating renewals. Remedial training, RHS checks, repeat checks due to failures etc all need to be carried out and this adds extra cost and disruption when the simulator is located remotely and must be accounted for once non normal exercises are prohibited in the aircraft.

CASA rules with regard to the use of overseas simulator instructors and approvals need clarification. Unlike large airlines the smaller operators will not always be able to provide their own instructors and will rely on third party instructors. It is not clear under this NPRM what approval process will be applied.

KEY CHANGE PROPOSAL 2

Key Change Proposal 2: For multi-engine aeroplanes and helicopters certificated to carry between 10 and 19 passengers, and where an appropriately qualified flight simulator or FTD is available in Australia, any non-normal exercise must not be performed in the actual aircraft

Rex operates both Metro and B1900 aircraft and as such will be carrying out simulator training for one type while for the other type it will be done in the aircraft. This is no different to current arrangements as from its inception Rex has had a policy of conducting all asymmetric operations in the simulator where a suitable facility is available within Australia.

One difference with key change proposal 2 is the requirement for the check pilot to be current in a simulator before conducting any non normal exercises. As for many operators the B1900 operation in Rex is small with less than half a dozen pilots and relies on one person to carry out all checking duties. In the event that this person is not available contract check pilots can be used. However under key change

proposal 2 this would mean that any replacement check pilot would also have to be simulator current or significant disruption would occur. This is not practical and Rex submits that CASA needs to build some flexibility into the proposed rules to cater for smaller operators with only one or two eligible aircraft.

The issue of simulator downtime also needs to be clarified. If for example the Metro simulator was to be unserviceable for an extended period of two months or more, as has happened in the past, CASA needs to clarify that training may be switched to the aircraft during that period.

In its response to submissions made to the Discussion Paper CASA states:

While a requirement to conduct flight simulator training overseas may have additional costs, CASA considers that the costs of simulator training in Australia for an Australian operator are comparable to, if not cheaper than, conducting the same training in an aircraft. This does not take into account the safety benefits of simulator training. Nevertheless, an assessment of business compliance costs will be undertaken prior to the making of any proposed rule, in accordance with government requirements.

Rex believes that it is essential that a Regulation Impact Statement is carried out. One factor that must be taken into account is that simulator costs will rise once such training is mandated and operators of simulator centres no longer have to compete against training in the aircraft. Although not contemplating aircraft training, Rex has determined that by allocating an older, written down A model SAAB purely for training it could conduct its recurrency training cheaper than in the simulator. It should not be assumed that the simulator is cheaper or comparable to the aircraft in all cases, even when it is carried out in Australia.

KEY CHANGE PROPOSAL 3

Key Change Proposal 3: Define ‘non-normal exercise’ as an aircraft operation for flight crew training, checking or testing, which involves a simulated system failure of a kind that affects, or would be likely to affect, the flying performance or handling characteristics of the aircraft beyond the parameters of normal operation

Rex believes that the definition of a non-normal exercise, particularly the phrase “or would be likely to affect” is vague and open to interpretation by individuals within CASA. This has the potential to seriously disrupt Training & Checking systems and requirements, simply on the basis of an interpretation and needs to be clarified.

Appendix 1:

COST OF WESTWIND INITIAL AND RECURENCY TRAINING

INITIAL TRAINING		
	SIMULATOR	AIRCRAFT
Flight Crew Endorsed p.a.	2	2
Cost per Endorsement	\$27,175.39	\$15,200.00
Cost Per Annum	\$54,350.77	\$30,400.00

PROFICIENCY CHECKS		
	SIMULATOR	AIRCRAFT
Flight Crew	16	16
Crew Set Checks p.a.	16	32
Cost Per Check	\$16,750.66	\$6,400.00
Cost Per Annum	\$268,010.49	\$204,800.00

TOTAL SIM COSTS	\$322,361.27
TOTAL AIRCRAFT COSTS	\$235,200.00
ADDITIONAL COST IN SIM	\$87,161.27

REPLACEMENT CREW

Note: the 15th and 16th flight crew above are required to provide contract coverage for the periods of time crew are absent undergoing simulator training

The cost of employing these crew are as follows:

CAPTAIN	\$136,993.48	Salary x 1.19
FIRST OFFICER	\$104,547.77	Salary x 1.19
TOTAL ADDITIONAL CREW COST	\$241,541.25	

TOTAL ADDITIONAL COST

TOTAL ADDITIONAL DIRECT & INDIRECT COST: \$328,702.52