

Baby on board

Parents flying with babies face tough decisions, writes Helen Waddington.



ANOTHER BUSY holiday season in Australia. Plane loads of families cross the country to join loved ones or escape them. Those flying with infants face decisions about the best way to keep their little ones safe.

Supplementary loop belts – also known as infant seatbelts – must be used for all infants carried in the arms of adult passengers. The belt has a stitched loop through which the adult belt is passed. It is fastened around the infant and attached to a fully secured adult seatbelt.

In Australia, airlines provide the special belts. Flight attendants brief parents on the belts' use, and, if necessary, help with fitting them. However, there is a limit to the number of infants allowed to be carried. For example, one airline's 737s carry only eight supplementary loop belts.

There has been some confusion over regulations governing restraint of infants carried in the arms. Civil Aviation Order 20.16.3 states: When an infant is carried in the arms or on the lap of a passenger ... the seatbelt, when required to be worn, shall be fastened around the passenger carrying or nursing the infant, but not around the infant.

This CAO should not be construed as allowing an infant to travel unrestrained in an aircraft. Regulations require all passengers and crew members to be restrained. The intent of the CAO is to make it clear that the

adult seatbelt cannot be used to restrain the baby. If the seatbelt was passed around both the parent and child, the parent would crush the child against the restraint if the aircraft stopped suddenly, in a rejected take-off, for example.

To avoid confusion, CASA recently issued CAAP 235-2(1) to clarify the regulations, responsibilities of the carrier and correct use of child restraint systems. You can view the document at: http://www.casa.gov.au/download/caap/ops/235_2

However, in a serious but potentially survivable accident, supplementary loop belts do not keep children as safe as adults. In an accident, a parent holding a child would fold forward around their own seatbelt. The baby would be crushed between the parent's chest and thighs. However, the belts protect babies from being thrown around the cabin in turbulence or in a crash. Under crash conditions, G forces make a 10 kg child effectively weigh 90 kg, a weight impossible for a parent to hold.

Although the current system has restraints for even the smallest infant, the safest choice is for the child to travel in its own seat with a standard infant-restraint car seat. This would give them the same protection as adults.

The use of infant seats on certain flights is a matter between airlines and passengers, however, and many child restraints do not

fit in or cannot be fully secured to aircraft seats.

Child seats currently acceptable in Australia include those complying with Australian design standard AS/NZS 1754 for infant car seats.

These seats must be secured in the aircraft in a manner consistent with the manufacturer's design criteria. This standard requires that a top tether, in addition to the fastened lap belt, be fitted. However, airline seats have no way of attaching the top tether, and there is seldom any suitable aircraft structure to which to fasten it. If the securing of a child seat in an aircraft involves more than using the aircraft lap belt, the design of the installation must be approved as a modification to the aircraft under regulation 35 of CAR 1988.

Other seats not requiring a top tether are also acceptable. These include seats accepted by the US Federal Aviation Administration, seats approved to Canadian Motor Vehicle Safety Standard, seats accepted by the UK Civil Aviation Authority and those meeting European Safety Standard requirements of ECE Regulation 44.

Any child or infant seat must be installed in accordance with the seat manufacturer's instructions. Parents should check with the airline when booking to ensure the infant restraint seat can be correctly secured.

CASA plans to conduct tests to see if normal Australian child car seats could be used without the top tether.

"Even without the top restraint, the automotive child seat has a good chance of providing much better protection for the child than is provided by a supplementary loop belt," says David Villiers, of CASA's airworthiness standards branch.

There is a drawback to this approach, however. Currently, infants who travel on their parents' laps travel free. An infant restraint seat occupies an airline seat of its own, for which parents have to pay.

Protection for children in airliners is a big issue worldwide. In Canada, research is under way into a lightweight, stowable, folding seat made of composite material that fits into all aircraft seats. Another initiative is a German prototype called the "tyke tube" – an inflatable tube, fixed to the adult passenger, into which the infant is placed.

The tube is intended to prevent the adult from crushing the infant. German researchers have also developed another inflatable seat, called a "Luftkid".

None of the systems provides the same level of protection as is required for adults, however, and none is currently approved.