

# The Ageing Pilot

The pilot population is getting older as we live longer. There is no age limit for holding a medical certificate in New Zealand, and pilots here have continued to fly successfully into their 80s. If you are getting on in years, here are some issues to understand and compensate for when you fly.

## Vision

The average person has a field of vision of around 190 degrees. After age 35 your field of vision begins to contract, and in males, this reduction accelerates after 55. By 65, your field of vision can be as little as 140 degrees. So as you get older, you will need to turn your head to see things that would have been picked up by your peripheral vision when you were younger.

There is a gradual decrease in visual acuity (sharpness of vision), and dynamic visual acuity (the ability to detect and focus on moving objects), as we get older. Using an effective scanning technique will help you to overcome this when looking for traffic.

With age, we need more light to be able to see effectively, so your vision will be worse in low illumination compared to when you were younger. Flying at dawn, dusk, and at night, therefore, becomes more challenging. Increased susceptibility to glare, and longer dark adaptation times, make flying at these times even more difficult.

Age also affects contrast sensitivity and depth perception. For example, in 'whiteout' conditions, recognising where the terrain ahead finishes and the sky begins will get harder with age.

## Hearing

We start out in life being able to hear frequencies up to 16,000 Hz. As we age, we progressively lose the ability to hear higher frequencies. By age 60, there can be a hearing loss of over 40 decibels at 8000 Hz.

Voices are between 500 and 3000 Hz. Noise induced hearing loss suffered over time can compound age-related hearing loss enough to affect your ability to hear voices. It may become more difficult to pick out one voice or sound in a noisy environment. This can affect how verbal instructions are heard. Wearing a good quality headset will help.

## Strength and Movement

Older pilots are capable of doing the same tasks as younger pilots, but they may be working closer to their body's maximum ability.

Often, flexibility is lost with age, making it more difficult to carry out normal tasks such as using overhead controls, and opening canopy doors. It is important for older pilots to test they still have the strength and movement to deal with emergency situations like a hydraulic failure, carrying out a manual gear

extension, or controlling the aircraft with a trim malfunction.

Reduced neck movement will further limit your field of view during a lookout.

## Sleep Regulation

Age affects both the length and quality of your sleep. Many people find it harder to get back to sleep after a disruption, and are more affected by light and noise, as they get older. Sleep can also be disturbed by aches and pains, and in men, bladder or prostate problems.



To combat this, older pilots require more time between extended shifts than they used to. Their body will not recover as quickly as a younger pilot's. They also need to be aware of the effects of fatigue. If you make sure the cockpit is not too warm, this will help.

## Brain Function

With age, your memory declines, retrieval of information may be slower, and your reaction time will be longer. It also takes more time to learn and acquire new skills.

Fluid intelligence is the ability to think and reason abstractly and solve problems. This declines with age, whereas crystallised intelligence (learning from past experiences) is maintained as we age and accumulate new knowledge and understanding.

To stay on top of your game, currency is important. If you don't fly often, it is important to fly dual with an instructor more frequently. Thinking ahead and anticipating will minimise reactive situations, and using a checklist and writing down clearances will overcome any memory issues. As we get older it is more important to plan ahead and be organised on the ground.

## When to Stop Flying as Pilot-in-Command

Age related impairments happen gradually, and pilots learn to adapt and compensate for these over time. Each one in itself can be worked around. You can continue to fly safely and enjoyably if you are aware of how

ageing will affect your abilities, and take steps to minimise this. There comes a point, however, where all of these minor impairments add up to cause a significant decrease in your performance as a pilot.

It is important to stop flying as PIC when:

- » You are unable to stay competently current (as opposed to legally current).
- » You are aware of deficiencies in your performance and find it difficult to compensate for these despite retraining.
- » If passengers who were previously comfortable flying with you, become worried about your abilities, then ask yourself why.

This doesn't mean you have to give up flying altogether – just stick to dual flight with an instructor from then on. ■

