

# SAFETY BULLETIN

<b>Safety Bulletin No.</b>	<b>2022/ 04</b>	<b>Date Issued</b>	2022 08 04
<b>Subject</b>	<b>Airside Jet Noise</b>		
<b>Area of Concern</b>	Hearing protection requirements		
<b>Issued By</b>	Health & Safety Manager (phone: 0402 782 375)		

## Background

Darwin International Airport is a joint user airport shared with the RAAF. Each year the RAAF runs joint military aircraft operations with fighter jets that go faster than the speed of sound and create excessive noise levels that can peak at up to 140 decibels.

This bulletin has been produced to advise staff & contractors the minimum hearing protection that should be worn during these exercises.

## Technical Information

The NT WHS legislation states that people must not be exposed to 85 decibels averaged out over an 8-hour period. This noise exposure duration approximately halves for each 3 decibels thereafter (see Table below). Jet noise exposure on airport can be as high as 140 decibels (adjacent to the aircraft) for 10 seconds (per aircraft) and unprotected ears must never be exposed to this level of noise. The maximum noise levels on the airside walkways or RPT apron can on rare occasions be as high as 120 decibels.

Class 5 ear plugs will provide 26 decibels protection, so therefore, if exposed to 120 decibels, the exposure will be  $120 - 26 = 94$  decibels which equates to 1 hour max daily exposure. If earplugs and earmuffs are worn, they will offer around 31 decibels protection.



Typical earmuffs



Class 5 ear plugs

85 – 8 hours
88 – 4 hours
91 – 2 hours
94 – 1 hour
97 – 30 min
100 – 15 min
103 – 7.5 min
106 – 3.75 min
109 – 1.9 min
112 – 56 sec
115 – 28 sec
118 – 14 sec
121 – 7 sec
124 – 3.5 sec
127 – 1.75 sec

Decibel exposure times

## Recommendation

Everyone that will be accessing or working airside (during times when jet aircraft are operating for military exercises) should wear the following hearing protection (at all times), as noted:

- **1 hour or less** (exposure to 120 decibels) – Class 5 earplugs
- **Greater than 1 hour** (exposure to 120 decibels) – Class 5 earplugs & earmuffs (max 4 hours)

These are guidance only and wherever possible persons should avoid working near excessive noise levels

**THINK SAFELY, ACT SAFELY**