



AFL LIGHTNING GUIDELINES

1. Introduction

A new AS1768-2007 Lightning Protection Standard was published on 10 January 2007.

Section 1.2 states that “Compliance with the recommendations contained in this Standard will not necessarily prevent damage or personal injury due to lightning, but will reduce the probability of such damage or injury occurring”.

3.3.1 Under Precautions and Personal Safety notes “In the absence of specific information from weather radar, a lightning location system, or a specialized warning device” then “the 30/30 safety guideline should be used.”

2. Procedures

When lightning is considered to be a possible or actual threat to an AFL match the following procedures are applicable:

(a) Access to Bureau of Meteorology

(i) Lead Up Prior to Match Day

The proactive plan should commence in the days before the activity, where weather forecasts provide important warning of possible thunderstorm activity.

- The AFL administration will monitor weather forecasts commencing Tuesday prior to schedule matches using the Bureau of Meteorology (BOM) website. Note should be taken off any warnings posted.
- The AFL administration will continue to monitor the BOM site in the days leading up to the match.
- On the day prior to match if any threat of lightning is predicted the Match Day Manager will contact the Duty Forecaster of the BOM in the relevant state of venue and request a verbal update. BOM contacts are distributed to all Match Day Managers prior to the start of the Pre-Season competition.

(ii) Match Day/Training

Increased awareness of lightning risk should continue on the match day until the activity has finished.

- If the threat continues into game day the Match Day Manager should contact or meet the Ground Manager to discuss the situation.
- They should check the BOM website then contact the Duty Forecaster at the relevant BOM to determine the situation.
- The competing AFL Club Football Managers should be contacted in order to explain the situation to them.
- Regular updates must be sought from the BOM in the period leading up to the match commencement time, involving the Ground Manager, competing Clubs and an umpire.

- Teams and officials should proceed to the venue unless otherwise directed.
- If lightning is predicted within no less than 10km of the match venue at the scheduled starting time the game commencement time may be delayed by up to 60 minutes.
- This decision to **delay or suspend** play as well as **resume** play will be based on information obtained from the BOM. The General Manager – Football Operations must be contacted to discuss, the Match Day Manager, Ground Operations Manager, Club representatives and an Umpire will be involved.

Note: Further information re: lightning strikes may be obtained from GPats, a private company based in Sydney. While not able to identify where lightning will strike this group can be of some assistance in establishing the extent, if any, of the threat.

(b) No access to Bureau of Meteorology (30 / 30 Rule)

The most basic level of warning involves observation of the weather in the local area.

(i) Match Day/Training

The “**30/30**” rule is recommended for lightning safety and serves as a guide for the suspension and subsequent resumption of activities. The overall principle is to seek shelter when the lightning activity is too close.

The observation of approaching storm clouds, the first flash of lightning or clap of thunder, no matter how far away should heighten lightning awareness. The level of risk depends on one’s location (direction and distance) relative to the storm cell and the direction in which the storm system is traveling.

A simple method of determining the distance to the storm cell is to measure the time elapsed from when the lightning flash is observed and when the associated clap of thunder is heard.

Light travels faster than sound. Assuming that the light from the flash reaches the observer instantaneously, and knowing that sound takes approximately three (3) seconds to travel one (1) kilometre, the distance can be determined by using the following rule:

$$\text{Distance (in Km)} = \frac{\text{Time from observing the flash to hearing thunder (in seconds)}}{3}$$

It is important to remember that lightning may be obscured by clouds so it must be assumed that when thunder is heard, lightning is in the vicinity. In such cases, careful judgment must be used to determine whether a threat exists.

The first part of the “30/30” rule is a guide to the *postponement* or *suspension* of activities. Most experts agree that the accepted ‘safe’ distance from lightning is less than 10km. This means that as **the time interval between observing the flash and hearing the thunder approaches 30 seconds**, all those in exposed areas should be seeking or already inside safe shelters. A storm cell with lightning activity within 10km constitutes a threat.

The second part of the 30/30 rule provides the criteria for the *resumption* of activity which is applicable to decisions made with BOM access as well. Here, it is recommended that people **wait a minimum of 30 minutes after the last sighting of lightning or sound of thunder**. This figure is based on the observation that the typical storm moves at about 40km/h. Thus, waiting 30 minutes allows the thunderstorm to be about 20km away, minimising the likelihood of a nearby lightning strike. Note: 60 minutes is the maximum delay time.

It is important to emphasize that blue skies and lack of rainfall are not adequate reasons to breach the 30 minute minimum return-to-activity rule.

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