

Information Sheet

INTERFERENCE EFFECTS USING RADIO TRANSMITTERS IN MEWPS

Purpose:

The purpose of this information sheet is to inform operators and supervisors of the risk associated with using UHF radio transmitters in Mobile Elevating Work Platforms (MEWPs) and to provide guidance on the use of such devices.

Background:

When using a UHF radio transmitter in a Mobile Elevating Work Platform (MEWP) an unintended motion occurred causing the MEWP to move even though the motion control was not actuated. Subsequence investigation revealed that the transmitter was placed on top of the control panel or in close proximity to the joystick controls resulting in interference between the transmitter and a hall effect type joystick. (Hall effect type joysticks and sensors are commonly used on cranes and telescopic handlers as well as MEWP's). Interference also affected the operation of some sensors on the MEWP, causing spurious signals.

Only some UHF radios and on some channels resulted in interference.



Significant Factors:

Significant factors contributing to this incident are:

1. The function enable (footswitch) was engaged.
2. The transmitter was placed on the control panel close to the joystick with the aerial pointed towards the joystick.
3. The UHF radio was transmitting at the time.

Preventing incidents of this type

Operators should follow best practice recommendations, i.e.:

1. When performing any task other than manoeuvring the MEWP, the machine must be brought to a full stop and all motion controls must be disabled by disengaging the function enable switch (e.g. footswitch). Simultaneous operation of the MEWP and other devices such as mobile phones or radios will divert attention from safe operation.
2. Tools and equipment must never be placed on the control panel. Any object on the control panel may interfere with the controls either mechanically (e.g. preventing controls returning to neutral and causing a control to move with another), or electrically (e.g. by electromagnetic interference).
3. Users of UHF Radio transmitters should establish that the radios conform to the appropriate directives and do not cause interference with equipment generally.