IRATA International code of practice for industrial rope access

Part 3: Informative annexes

Annex O: The effect of wind and height on working times

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Annex O (informative)
The effect of wind and height on working times

Introduction

Annex O gives advice and other information that could be relevant to users of rope access methods and is one of a number of informative annexes in Part 3 of this code of practice. This informative annex should be read in conjunction with other parts of this code of practice, should not be used in isolation and is not intended to be exhaustive. For further advice, readers should refer to relevant specialist publications.

O.1 General

O.1.1 Harsh climatic conditions such as those caused by high winds can affect the number of consecutive hours a rope access technician could be expected to work safely in any one shift. Employers should be aware that, in such conditions, periods of consecutive working might need to be reduced.

NOTE Other climatic conditions that could affect working times, which employers should also take into account, include high and low air temperatures. These are not covered in this annex but it is intended to do so in a future revision.

O.1.2 Steps can sometimes be taken to combat the effects of the wind, e.g. by the use of sheeting as shown in **Table O.1** or other types of barrier, or by working on the lee side of a building rather than in an exposed area.

O.1.3 **Table O.1** provides an example of how different wind speeds can affect working times when working at height. The information is based on work done by Toronto University. These times are likely to vary considerably, depending on factors such as the surrounding air temperature, the height above ground and the precise nature of the worksite.

O.1.4 The values in **Table O.1** show what might be acceptable working times in an eight-hour shift at different wind speeds when the worksite is unprotected and what they might be when the worksite is protected, in this case by containment netting or containment sheeting.

Table O.1 — Possible working times in an eight-hour shift at different wind speeds

Wind speed	**Working time limitations**		
	Unprotected	**Protected with containment netting**	**Protected with containment sheeting**
Metres per second	Hours	Hours	Hours
2	8	8	8
5	5	7	8
7	4	6	7
9	3	5	6
11	2	4	5
14	1.5	3	4
28	0.5 a)	0.5 a)	0.5 a) b)

Key

a) Acceptable for emergency work only.
b) The containment sheeting could be in danger of blowing away.

O.2 Other information

Other information on recommended maximum wind speeds when working includes:

a) BS 5975:2008+A1, in relation to false-work, (see 17.5.1.9) refers to the maximum wind speed during which working operations can take place as being normally limited to that of a wind force of six on the Beaufort wind force scale. This corresponds to a wind speed of between 10.8 m/s and 13.8 m/s;

b) The Construction Industry Research and Information Association (CIRIA) publication C703, *Crane Stability on Site*, 2003 edition (out of print), gives 20 m/s as a typical maximum in-service wind speed for a tower crane.

c) The Prefabricated Aluminium Scaffolding Manufacturers Association (PASMA) *Operator's Code of Practice* recommends that work upon a tower should cease if the wind speed exceeds 17 mph. (7.6 m/s).