



ESDU 02011

Issued 1 March 2004
Issue 8, February 2014

Wind Engineering Series organisation: preface sections and data items location schedule amendment record

ESDU Copyright material. For current status contact ESDU.

WIND ENGINEERING SERIES ORGANISATION

CONTENTS

	Page
1. PREFACE TO THE WIND ENGINEERING SERIES	1
2. SECTIONS AND DATA ITEMS IN THE WIND ENGINEERING SERIES	3
3. LOCATION SCHEDULE FOR DATA ITEMS IN THE WIND ENGINEERING SERIES	7
4. AMENDMENT RECORD FOR THE WIND ENGINEERING SERIES	8

WIND ENGINEERING SERIES ORGANISATION

1. PREFACE TO THE WIND ENGINEERING SERIES

The design engineer who is concerned with structures and equipment faces an ever-increasing demand for products with a performance which must be substantiated under stringent conditions of cost and environment. The customers for his products are becoming better educated in the ways of achieving, and what can be achieved by, competitive design. Assuming the basic skill of the designer, no other single factor can contribute more to the economic preparation of a satisfactory, competitive design than the data upon which that design is based and the speed with which those data can be found and applied.

The data concerning wind engineering, in common with those relating to many other phenomena of concern to the engineer in industry, are widely scattered and when located are of variable quality and relevance to industrial application. The engineering designer does not, generally speaking, have the facilities required to collect and evaluate all the data available that may be applicable to each aspect of his work. Even if he had the desire to undertake such a task, it is unlikely that he could allow the time necessary to prepare his own data 'working tool' at the expense of time spent in the application of his unique personal skills, knowledge and experience to the particular job in hand. In any case, the customer will increasingly wish to view the design, not against some locally-derived data, but against data that can be demonstrated to be the best that can be ascertained at any given time and which are vouched for by a significant cross section of the engineering and scientific community concerned with both the derivation and application of data in that particular field. It is ESDU's purpose to provide data of this nature relating to Wind Engineering as in many other fields. ESDU has prepared this information for both the designer and his customer and, by serving the needs of many, accomplishes the task at much lower cost than could apply to the individual performing it on his own behalf.

A qualified staff, with the assistance of many individuals and establishments throughout the world in research, industry and teaching, collects and evaluates the existing data. The staff discard that which is irrelevant or unreliable, correlating and distilling what remains into an authoritative working tool for engineering application. Throughout, their work is guided and monitored by an expert group and ad hoc working parties. New work is prepared under the guidance of the Wind Engineering Panel which has the following constitution:

Chairman	
Mr N. Thompson	– Independent
Members	
Mr A. Allsop	– Ove Arup & Partners
Mr C. Barker	– Flint & Neill Partnership
Dr P. Blackmore	– Building Research Establishment
Prof J.E. Cermak*	– Colorado State University, USA
Dr N.J. Cook	– Independent
Prof A.G. Davenport*	– University of Western Ontario, Canada
Dr D.M. Deaves	– WS Atkins Consultants Ltd
Prof R.G.J. Flay*	– University of Auckland, New Zealand
Dr A.R. Flint	– Flint & Neill Partnership
Mr R.I. Harris	– Independent
Dr J.D. Holmes*	– Independent, Australia
Dr R.P. Hoxey	– Silsoe Research Institute
Mr T.V. Lawson	– Independent
Prof K.C. Mehta*	– Texas Technical University, USA

Issue 8

Mr R.J. Melling	– Independent
Prof Dr-Ing. H J Niemann *	– Ruhr University, Germany
Dr A.G. Robins	– University of Surrey
Mr G. Wiskin	– Crown Castle UK Ltd

* Corresponding Member

The members of staff of IHS Global Ltd concerned are:

Mr S.J. Pugh	– Group Head, Wind Engineering
--------------	--------------------------------

2. SECTIONS AND DATA ITEMS IN THE WIND ENGINEERING SERIES

The ESDU Wind Engineering Series contains Items covering a wide range of topics, many of which will be of interest to aerospace engineers. Some of the Items of more obvious interest are included in the Aerodynamics Series. The following is a complete list of the Items in the Wind Engineering Series. If any software is associated with an Item the ESDUpac or VIEWpac number is given in the final column.

Section 1

Organisational Documents

Data Item No.	Title	Amendment Status	ESDUpac/VIEWpac No.
02011	Wind Engineering Series Organisation.	Issue 8, Feb. 2014	

Section 2

Wind speeds and turbulence - Mean Hourly and Gust Speeds, Extreme Speeds, Turbulence Characteristics

Data Item No.	Title	Amendment Status	ESDUpac/VIEWpac No.
82026	Strong winds in the atmospheric boundary layer. Part 1: mean-hourly wind speeds.	E, 1 Mar. 2002	E0108
83045	Strong winds in the atmospheric boundary layer. Part 2: discrete gust speeds.	C, Mar. 2002	E0108
74030	Characteristics of atmospheric turbulence near the ground. Part I: definitions and general information.	B, 1 May 2010	
85020	Characteristics of atmospheric turbulence near the ground. Part II: single point data for strong winds (neutral atmosphere).	G, 1 Aug. 2001	E0108
86010	Characteristics of atmospheric turbulence near the ground. Part III: variations in space and time for strong winds (neutral atmosphere).	E, 1 Sep. 1991	
87034	World-wide extreme wind speeds. Part 1: origins and methods of analysis.	B, Oct. 1990	
88037	World-wide extreme wind speeds. Part 2: examples using various methods of analysis.	Issued Dec. 1988	
88038	Estimation of hours per year when mean wind speed exceeds specified thresholds.	Issued Dec. 1988	

Section 3

Wind speeds and turbulence - Effect of Terrain Roughness and Local Topography

Data Item No.	Title	Amendment Status	ESDUpac/VIEWpac No.
84011	Wind speed profiles over terrain with roughness changes.	D, Apr. 1993	
84030	Longitudinal turbulence intensities over terrain with roughness changes.	C, Apr. 1993	