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WIND ENERGY GENERATION SYSTEMS –
Part 50-3: Use of nacelle-mounted lidars for wind
measurements

SYSTÈMES DE GÉNÉRATION D'ÉNERGIE
ÉOLIENNE –
Partie 50-3: Utilisation de lidars montés sur
nacelle pour le mesurage du vent

CORRIGENDUM 1

Corrections to the French version appear after the English text.

Les corrections à la version française sont données après le texte anglais.

4 Symbols and abbreviated terms

In the table, in the 22nd row before the end of the table (corresponding to ΔV_{hor}), replace "deg" with "m/s".

7.6.2.2 Horizontal wind speed uncertainty

After Formula (17), in " u_{cal} is the calibration uncertainty of the reference sensor used to measure ...", replace " $V_{\text{hor}} - u_{\text{cal}}$ " with " $V_{\text{hor}} \cdot u_{\text{cal}}$ ".

Table 1 – Summary of calibration uncertainty components

Renumber the entries in the table as follows, replacing the second "4" with a "5" and inserting a "10" after "9":

No.	Component	Type	Description
Reference anemometer			
1	Calibration uncertainty, u_{cal}	B	Calibration uncertainty of the reference anemometer sensor according to IEC 61400-12-1:2017
2	Operational characteristics, u_{ope}	B	Anemometer class according to IEC 61400-12-1:2017
3	Mounting, u_{mast}	B	Mounting uncertainty of the anemometer
4	Lighting finial, u_{lgh}	B	Uncertainty of the reference anemometer due to due to lightning finial
5	Data acquisition, u_{daq}	B	Data acquisition system uncertainty
Lidar probe length			
6	Site effects, u_{probe}	B	Horizontal wind flow variation within the lidar probe volume
Height error			Measurement errors due to wind shear
7	Installation, u_{vert_pos}	B	Height difference between reference anemometer and LOS due to installation of optical head
8	Measurement range, u_{inc}	B	Height difference between reference anemometer and LOS due to measurement range error
Relative wind direction, u_{θ_r}			
9	Reference wind direction sensor, u_{θ}	B	Deviation from linearity and other instrument uncertainties
10	Determination of line of sight, $u_{\theta_{los}}$	B	Uncertainty in the procedure of 7.5.6
Projection error			Errors in the angle used in projection
11	Installation, u_{φ}	B	The inclinometers' calibration uncertainty or the uncertainty of the direct measurement of φ (e.g. theodolite)
12	Flow inclination, u_{ψ}	B	Uncertainty due to neglecting the contribution of $W \sin \varphi$
Calibration measurements			
13	Statistical uncertainty	A	σ_{dev} / \sqrt{N}

Annex A – Example calculation of uncertainty of reconstructed parameters for WFR with two lines of sight

A.2 Uncertainty propagation through WFR algorithm

In the second paragraph, replace $f(x_y, x_2, \dots, x_N)$ with $f(x_1, x_2, \dots, x_N)$.

A.3 Operational uncertainty of the lidar and WFR algorithm

Replace $(u_{ope, lidar} = 0)$ with $(u_{ope, lidar} = 0)$.

Corrections à la version française:

4 Symboles et termes abrégés

Cette correction ne s'applique qu'à la version anglaise.

7.6.2.2 Incertitude de la vitesse horizontale du vent

Après la Formule (17), dans " u_{cal} est l'incertitude d'étalonnage du capteur de référence utilisé pour mesurer ...", remplacer " $V_{\text{hor}} - u_{\text{cal}}$ " par " $V_{\text{hor}} \cdot u_{\text{cal}}$ ".

Tableau 1 – Récapitulatif des composantes d'incertitude de l'étalonnage

Renommer les entrées dans le tableau comme suit, en remplaçant le deuxième "4" par un "5" et en ajoutant un "10" après le "9":

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