



Br f r r t

S l f s t r a l r d d t a h t t
d r l l g M a l r t

Zh h D a b a D h h I a a b *
L Y L S

R d 18 2007 d 8 A t 2007
A a b l 1 19 A t 2007

Abstract

Bha a l t d t h a t l f s t r a l a a r l d d t f e t r e t l l a d t e t x t d d t r d d t d f r e . T h e r r w r t a t d w h h r t a h t t h x e t e t r x d r l l g M a l r t f e d t l a b d d t d b l f s t r a l r h a t h f t l f s t r a l t w a d h E t r t d d t r t r d d t l f G a r t a t . A f t r r d w h d d t r t d d t l f s t r a l , b s t w r a d t d r a t l g M a l l t r a d t l w h l t r a t d t a l (E) w r r d d . f d h a t w h l h d d t l f s t r a l r r l t d a r d b l t d t l a l h a l g l e r t a t a l a l l t r d e r r a t t r w a b r d a f r h t d d t l f s t r a l r . r f i d r d l t r h l a l d e h a t l f s t r a l r d d t a l r t a l r h x e t e t r x .

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... E x e t e t r x ; a l r ; l g M a l ; l f s t r a l

1. Introduction

C l t a l f l e r t a l r h a a l b d e t d e l t r r l t a l r

I a a l r t a l r f i e d f l x b l . r a d r h l t r l t r r l t d d t l f t w l l w h a t a l r t a l r a b h a t h a e t r d a a l f s a d a d t x t d b a e l l d d t d b t r a l a t t a l a t f d t t t , E t r l t r b r d t d d t l f h a t b r r a d h a f f t r r t f t l (l l r r a r d a a b r a r h h l h t b l t a d a d D r r , 2007) R e t r e l t a l t d a l h w d d , t t a t l t a l f l e d e h a t e t a l r a r r a t l a l f r a d b . h a d r a . (2002) r r t d e l t r (? b t t a d y a t , 2005) . B e t x a r d t h d d t l f s t r a l r b h a e l r f r a e f r a r t a t d d t a f f r a d a l h a l g a B l a l h l 77 (2008) 93_97 e l t r (? b t t a d l l a f d h a t , r a t t E r a A r a , E t A a ' r f r a e f d h t r a t f l t a e h w d t r r t d e t b f l e d b h e (a l , 2000) . a d d t , A r a w r b t t r d t t f h a f a l b e t w h a a a w r b t t r d t t f h a h t f i H a a d a d ? b t t , 2006) .

* C r r d a h a t : D a r t t f h l , r t , 5 h a R a d , B 100871, G a T l : +86 10 6275 9138;

Y a x : +86 10 6276 1081.

... h a @ . d e (I a) .

h a r f b w h w d e t r r t
l g l a r t a f r h t r d d t l f r b t e t r
r t l a l a r t a f r h t d d t l f r (D
a. d. l. a., b. t. d. f. r. b. l. a. t.).

h l h r r a h t t a t b w
l t r a d e t a l r e h e l w r a d
a l g d b h a e l a r t. t r a a
f h e l a t t h a l r t x d r l
e t a l r e d a t d b l f e t r a l r e.

Th e r r t r a h t t d h b a r t r a t d
t a l (E) t l g l a d l a l a r t e d
l t r (F . 1). r e a d j a a t d f d
h a t h x e t a t t w a d a t d b l g l l a l
e t f d t l e f i l l a t a l a l
t a t t a a t a s b t 100 a f r t l

d l r (l) w a a r d t l a l h a l g l a r t (a
a. l., 1997, 1999, 2000). a d d t , h a d a t t h
r h e d l f t x e t a t r t x w a , r e t l l d t h
l g l a d l a l e t a l r e (F a. l., 1996, a
a. l., 2002). Th f i d d e t h a t h x e t a t
a t t l d t d f f r a t l g l a d l a l e t a l
r e f d t l.

I r w d h l f e t r a l r e r d r t h f t
h l f t w a r d h d d t r t r d t t l
G b t b f r h r f r d a f d r a t
f l g l l a l a r t. B a h a r l e t h
a. h l a r f r h x e t a t r t x (D R a. l.,
2001, a. r t a. l., 2001), a a t f h b l t d t

l g l l a l a r t a a f t f l f e t r a l r
w h r d d h a t l f e t r a l r d a t
h e t a l r e h x e t a t r t x. a d d t ,
b a r a d e f a k t t e l a t l g l
r e a d d a d e f a k t t e l a t
l a l r e (t

1.5. a) At a height of 100 m, the wind speed is 10 m/s. The wind speed at a height of 5 m is 5 m/s. The wind speed at a height of 10 m is 10 m/s. The wind speed at a height of 100 m is 10 m/s. The wind speed at a height of 100 m is 10 m/s.

a. d. trl r. d t (1_ 2: (19) = -1.057,
= 0.304; 7_ 8: (19) = -1.626, = 0.12).

A? A flh? l a a. ltd a. t 130_180 h w d
A. t a. ff. t f r (3_ 4: (2, 38) = 4.637,
= 0.016; 7_ 8: (2, 38) = 4.225, = 0.022; 3_ 4: (2,
38) = 4.095, = 0.025; 5_ 6: (2, 38) = 4.857, = 0.013),

t ha. th? la. ltd t d d t b a. r r h
r. trl r. d t ha. h trl d t lf. tra. l
r. d t wh. h tr t d d t b a. r r h h
d d t lf. tra. l r. d t I w r, h r
wa. fa. t t a. t b w Tar tl a. d r
a. a. l. trd (

lf_ tra_l r_ rd_ d lf-tl_ fi_ d at
fl_ a,rl_ el_x @ ta_ t t,wh ra_ r ltd
al_ fl_ h d al_x @ ta_ t ta_ @ al_ tr
t w dw Th_ r_ ff_ t h_ ? @_ ltd_ t
ha_ t x_ r_ f_ 'a_ d_ ' a_ d_ ar_ al
ha_ r_ twa_ h_ l_ al_ x @ ta_ t
a_ t t.
a_ t_ ha_ th_ pha_ al_ da_ h_ r_ r_ t