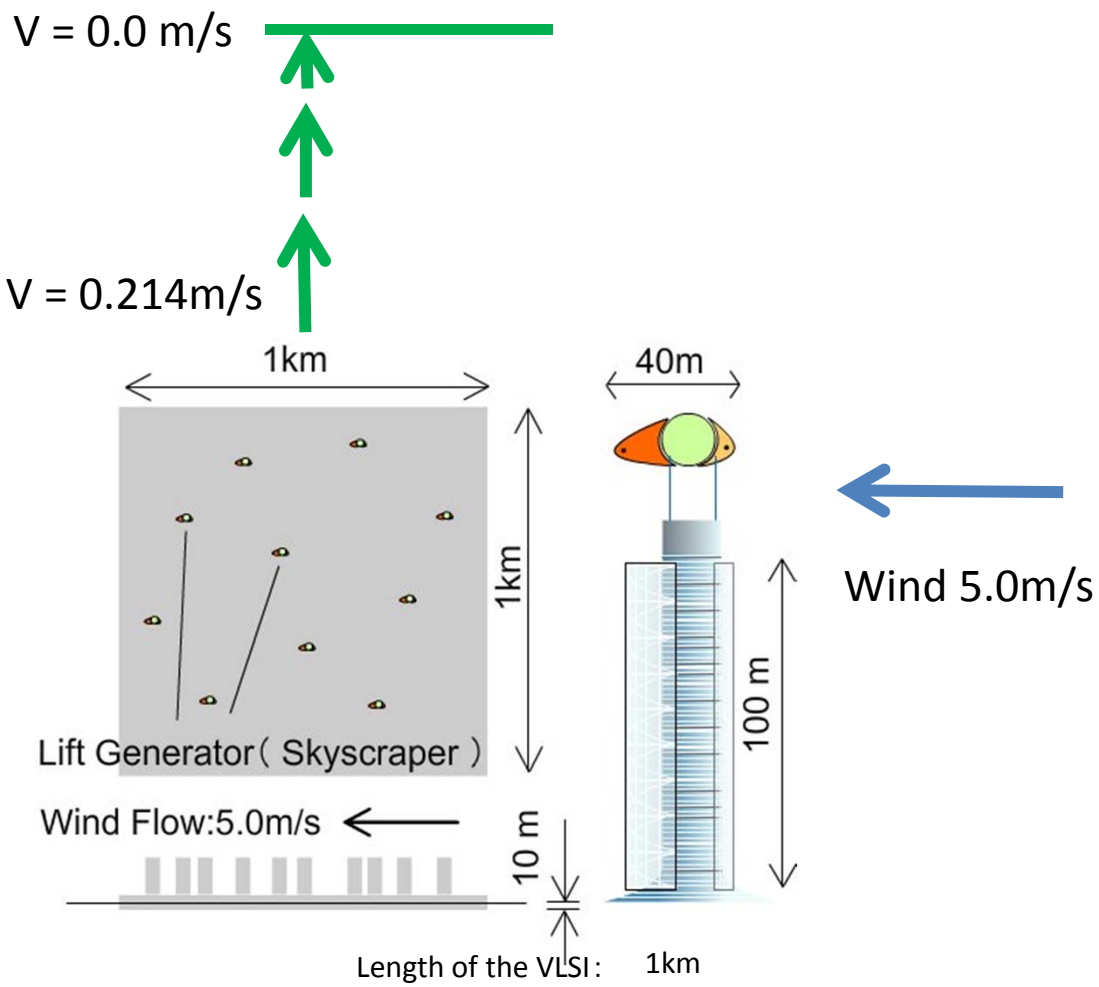
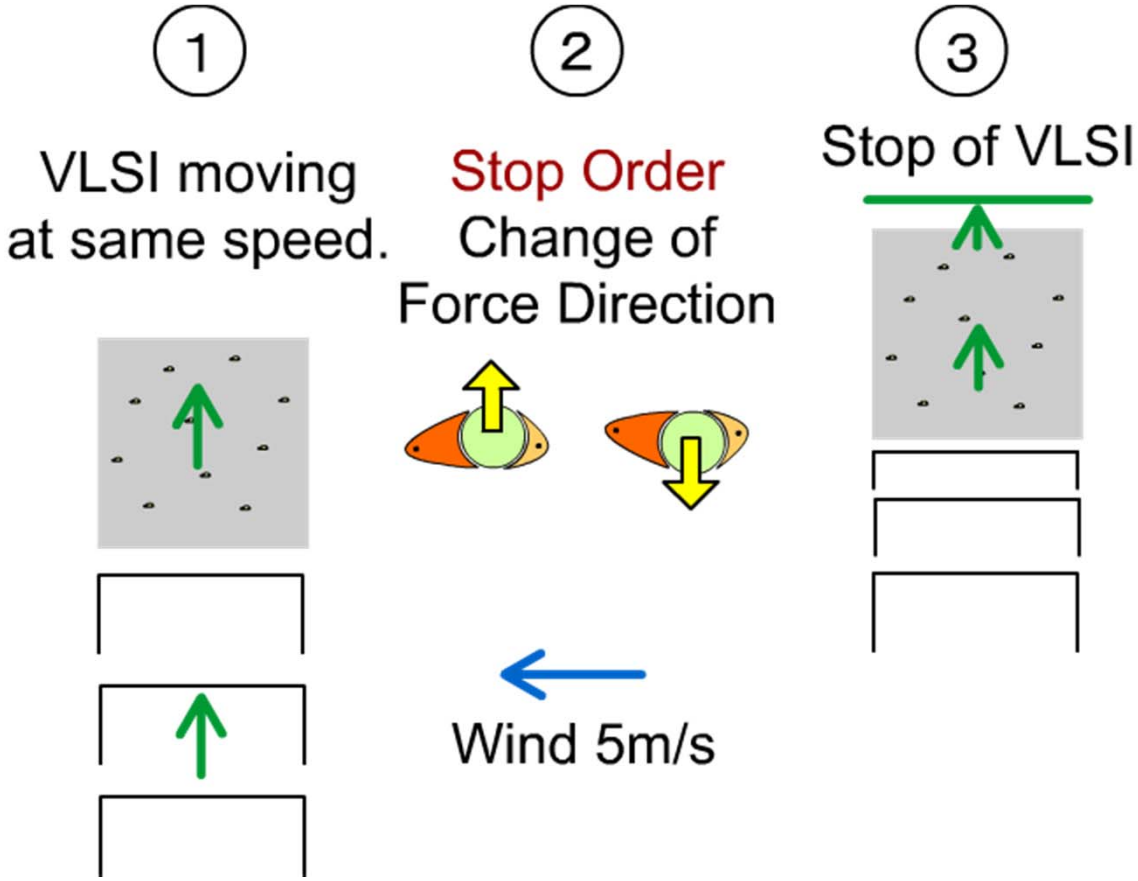
Outline examination about the control possibility caused by the wind for the VLSI (2)

By “Outline examination about the control possibility caused by the wind for the VLSI (1)”, it is about 20 km distance which a VLSI can move.
Here, I want to calculate the distance which the velocity of VLSI changes from 0.214 m/ s to zero and time.

Now, suppose a VLSI is moving upward on the paper with 0.214 m/s with receiving wind flow of 5.0 m/s. I want to calculate moving distance and time which the VLSI will stop completely.



Length of the VLSI :	1km
Depth under the sea surface of the VLSI :	10m
Height of lift generator :	100m
Width of lift generator :	40m
Number of VLSI :	10
Speed of the wind :	5.0 m/s



If we can make the wind force which we got by “Outline examination(1)” to stop, it will be 390000 kg.m/s^2 with 10 Lift Force Generators.
The mass of VLSI will be calculate by displacement , it will be 10m x 1000m x 1000m x1.025 =1.025 x 10^7 x 10^3 Kg

$$\mathbf{F} = ma \qquad \cdots(1)$$

F: Force (390000 kg.m/s^2)
m: Mass (1.025 x 10^{10}kg)
a: acceleration (m/s^2)

a = 38 x 10^{-6} m/s^2
And, the time to stop can be calculate by using the following form

$$V = a\,t \qquad \cdots(2)$$

V: Velocity (0.214 m/s)

a: acceleration (38×10^{-6} m/s^2)

t: time (sec)

Therefore t = 5631sec . It takes about 90 minutes to stop.
And, the distance to stop will be calculate by using the following form

$$S = \frac{1}{2} a\,t^2 \qquad \cdots(3)$$

S: Distance (m)

a: acceleration (38×10^{-6} m/s^2)

t: time (5631 sec)

The distance to stop of VLSI is S = 602.5 m.

It is same distance and time to acceleration to the constant moving speed.

But, there is another force to drug of hydro dynamics. So, the distance will be shorter than result above .