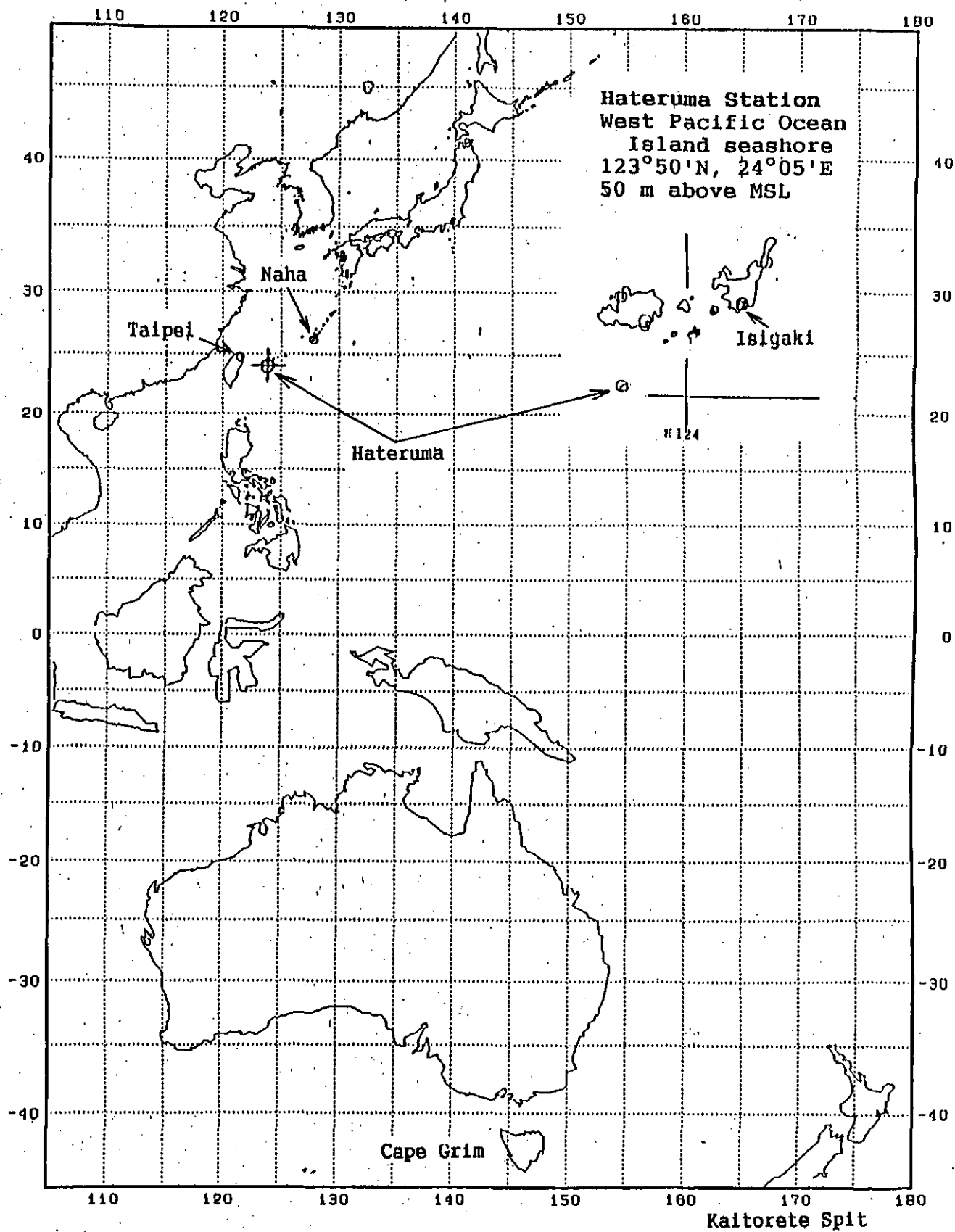
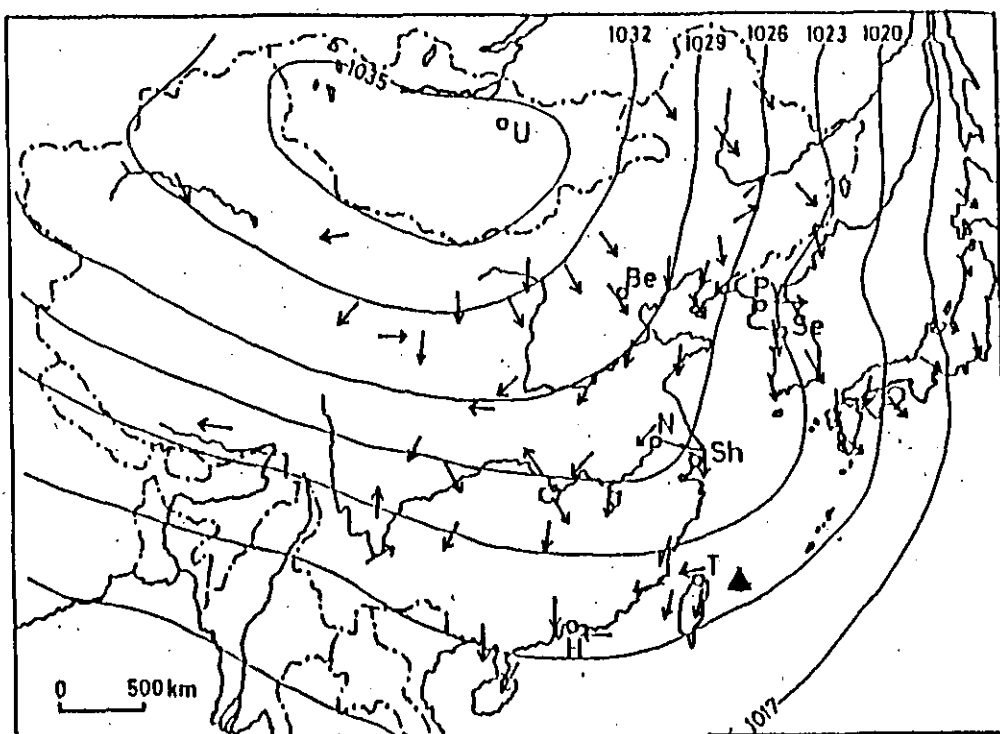


M o n i t o r i n g   S t a t i o n   -   H A T E R U M A

M a s a h i r o   U t i y a m a

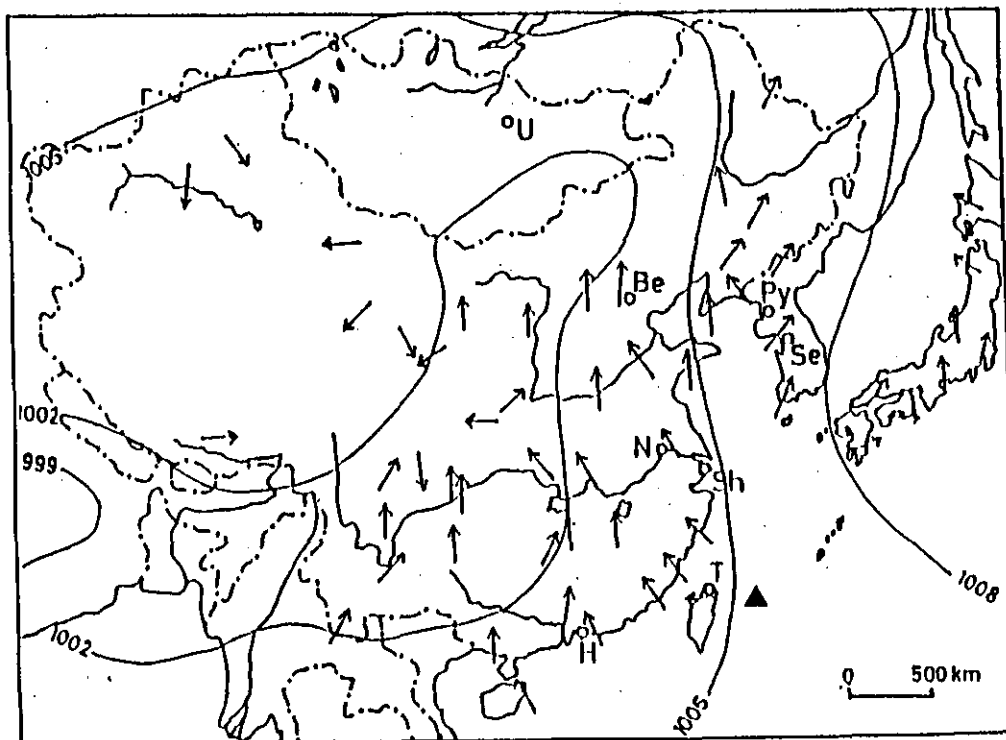
N I E S





**in January**

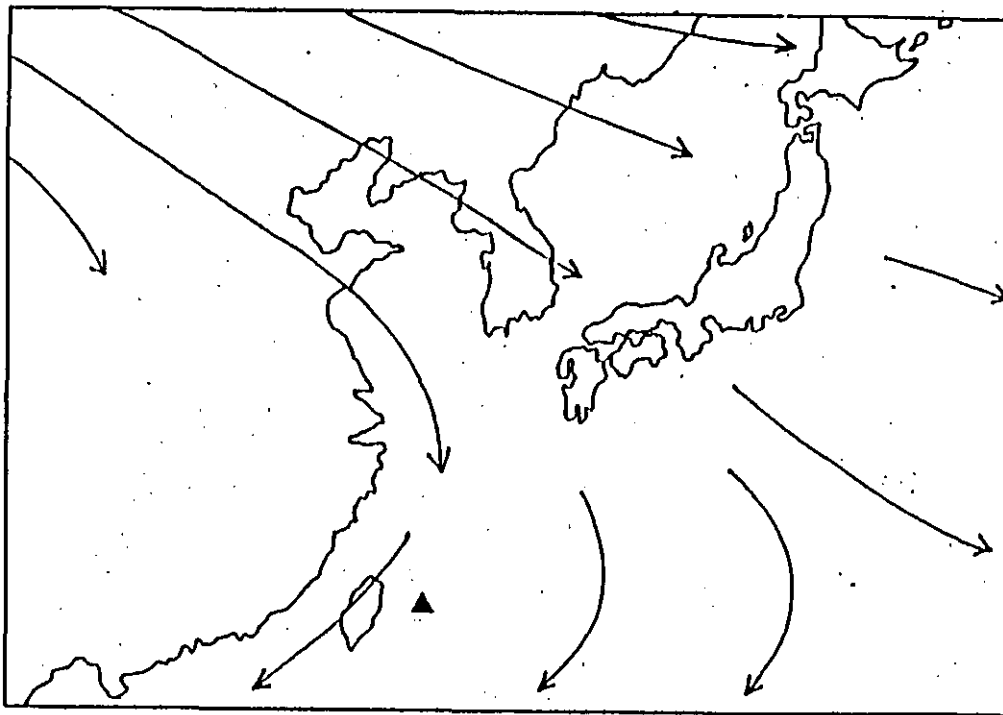
U : Ulanbator, Be: Beijing (北京), N: Nanking (南京)  
 Sh: Shanghai (上海), H: Hong Kong (香港), Py: Pyongyang (平壤)  
 Se: Seoul (京城), T: Taipei (台北)



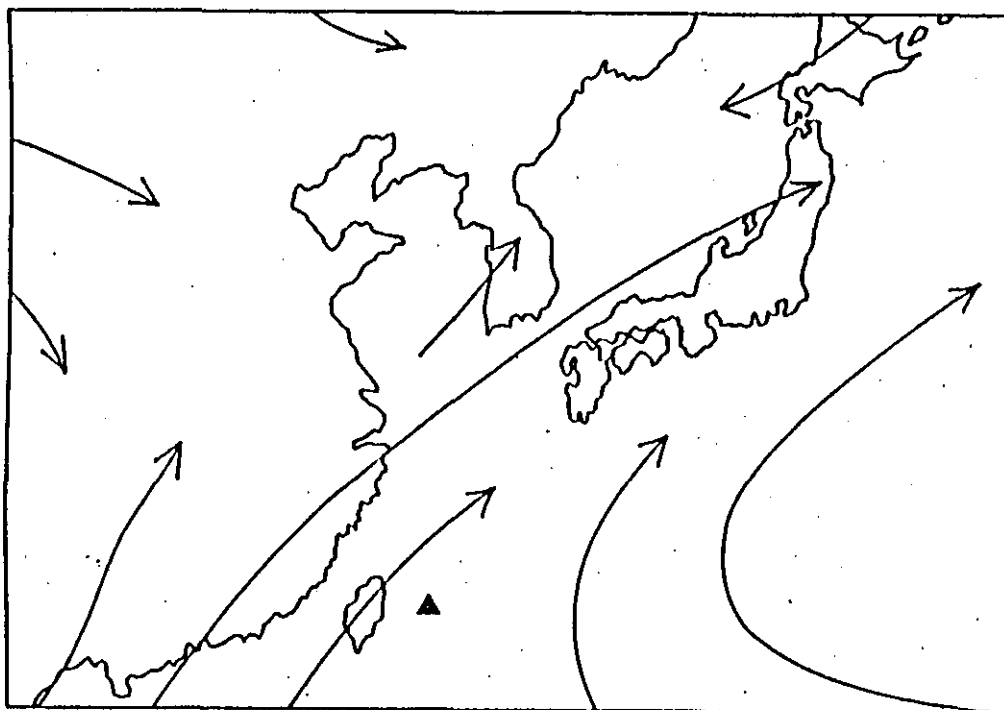
**in July**

**Average pressure patten and surface wind (10-15m height)  
 over the East Asia**

**(Ohta, S., 1986)**



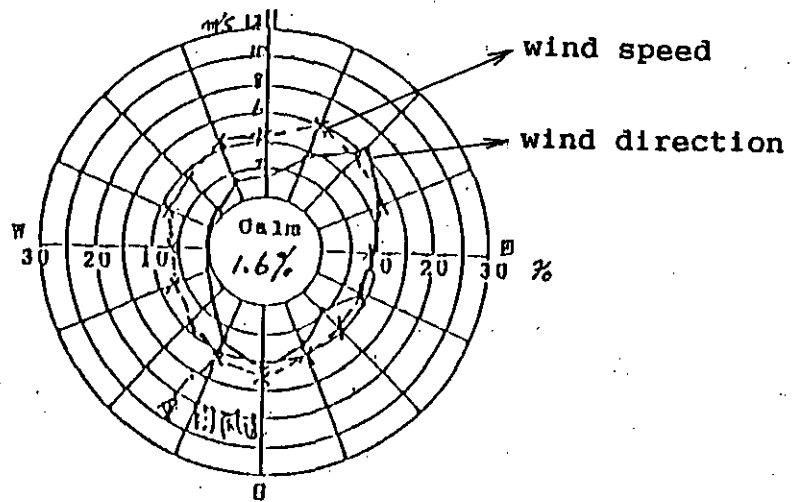
in January



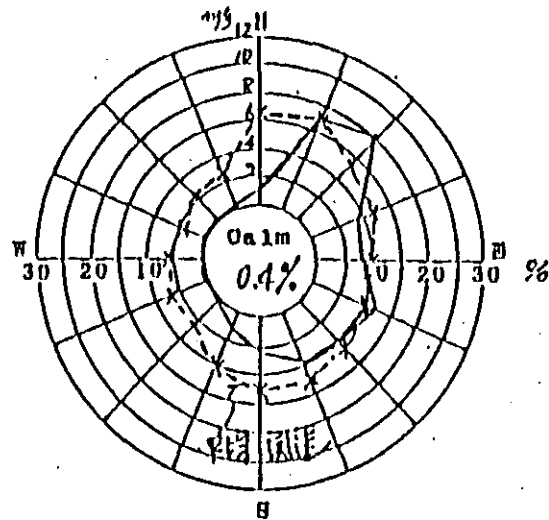
in July

Average wind system at 850 mb over the East Asia  
(Ohta, S., 1986)

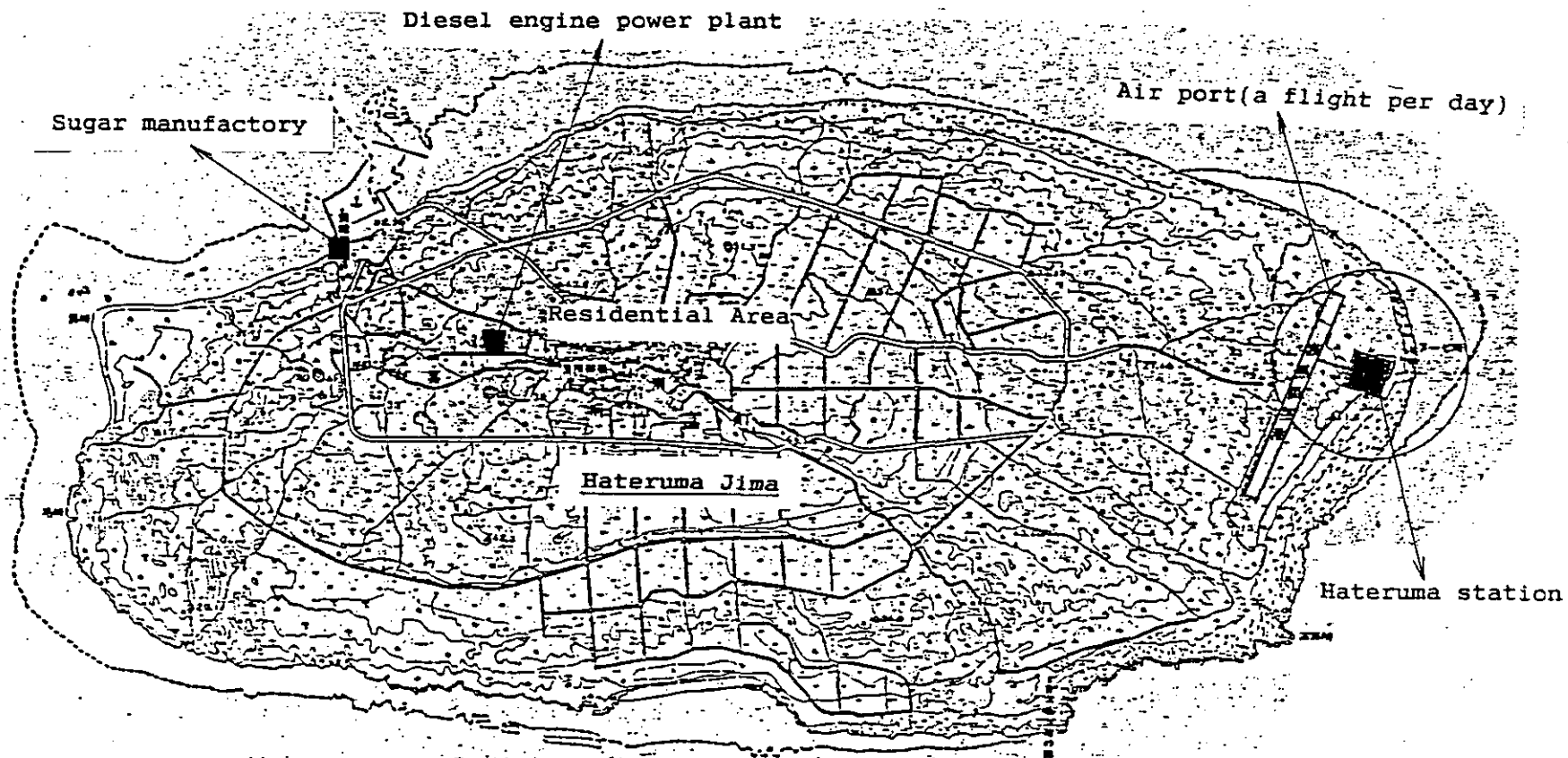
May - November



December - April



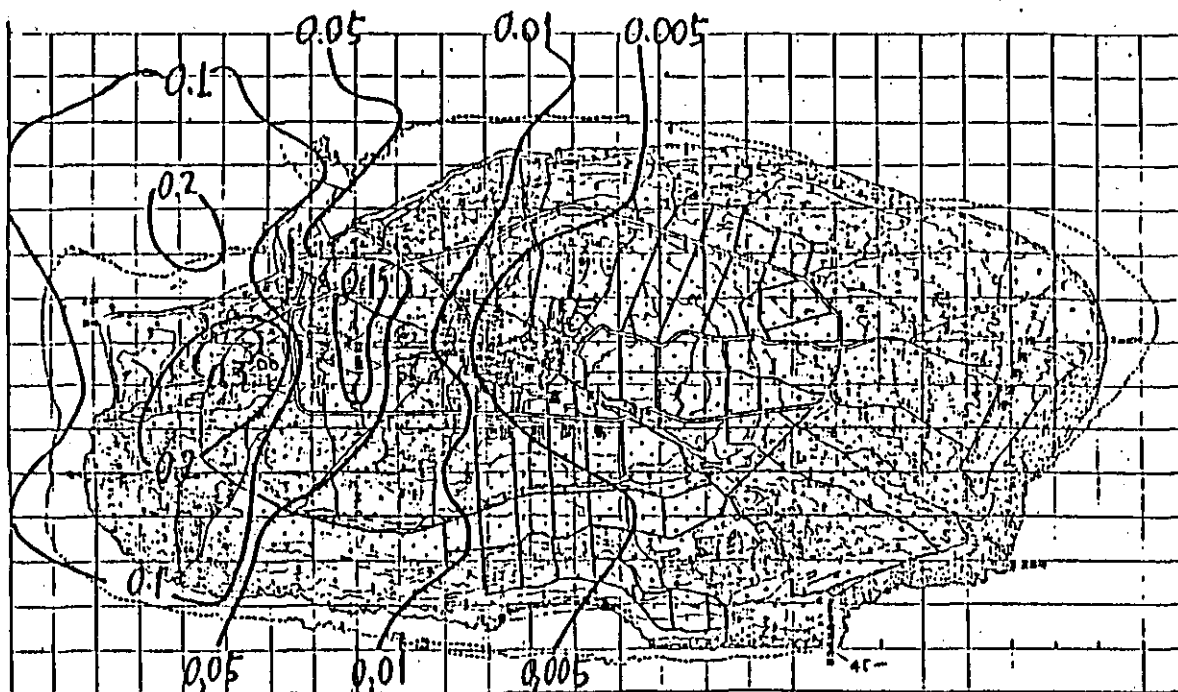
Wind rose of Hateruma island  
(Takeuchi, Y., 1991)



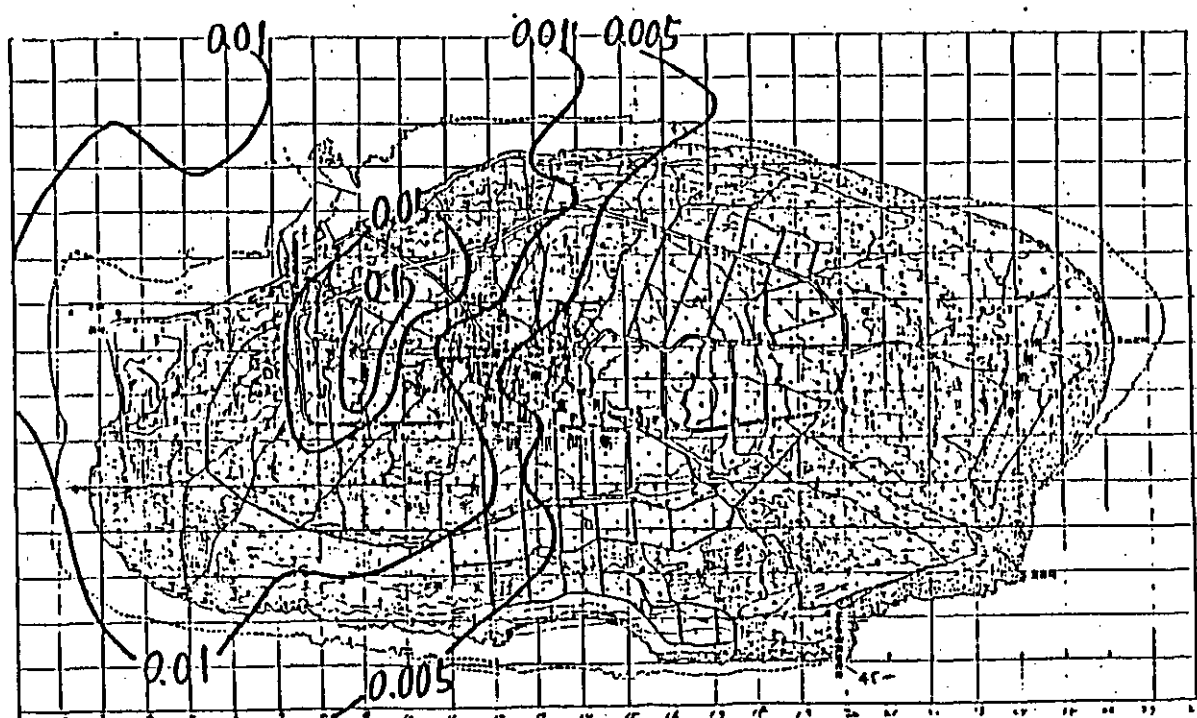
Hateruma island have

Figure:	oval
	east-west: 6 Km
	north-south: 3 Km
Population:	650
Agriculture:	sugar cane
Factory:	a sugar factory
Energy:	a diesel power plant

December - April



May - November

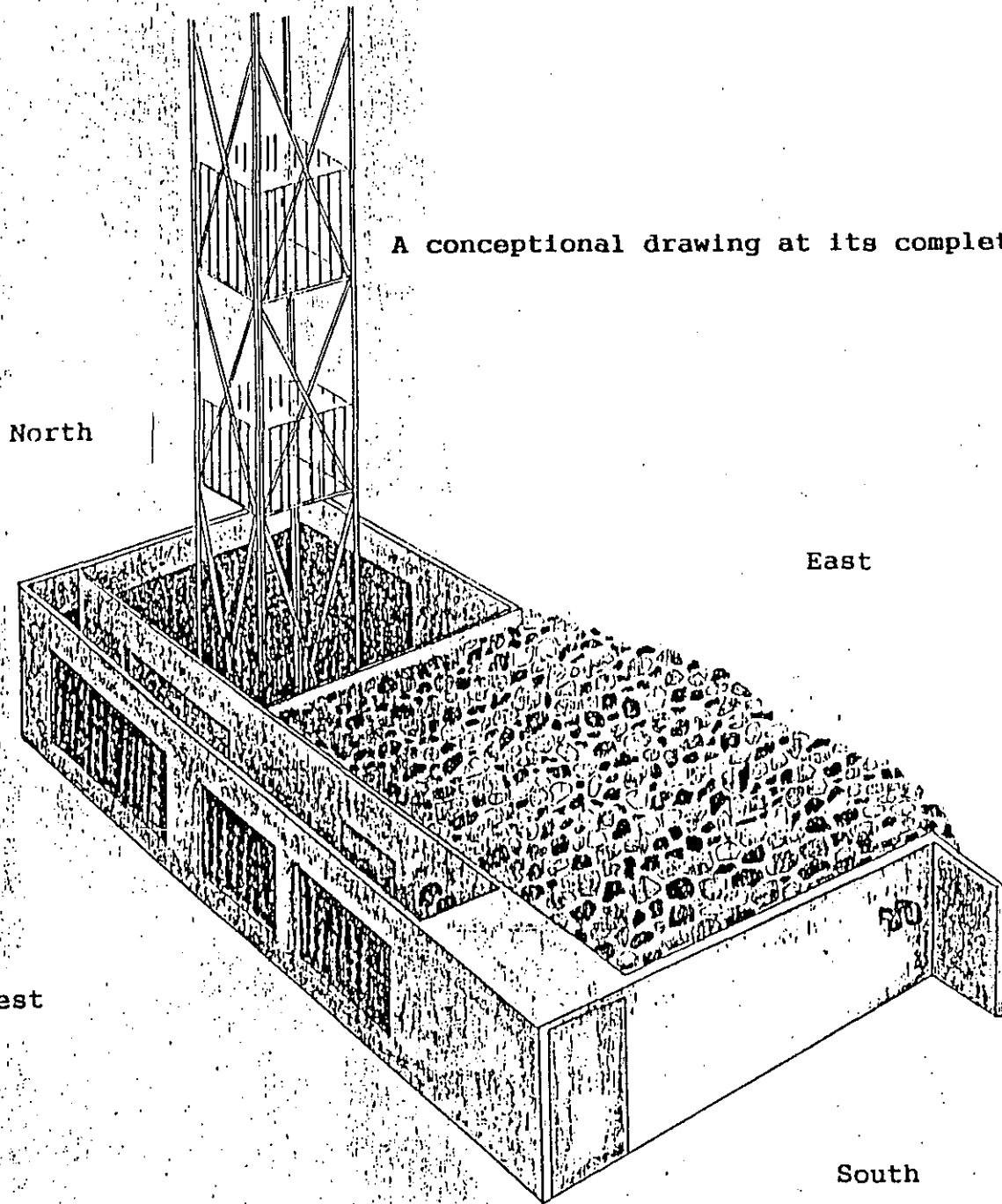


0 1 2 km

Contour of the CO<sub>2</sub> increase caused by the sugar factory and the power plant

Tower (40m height above ground)

A conceptional drawing at its completion







### The plan of the measurement

Species	Instrument(Method)	Date of start
CO <sub>2</sub>	Horiba(NDIR)	1992/7
CH <sub>4</sub>	HP5890 GC(FID)	1992/10
Rn		1992/10
Surface O <sub>3</sub>	Thermoelectron(UV)	1992/7
Particle(5,0.3μm)	TSI	1992/7
Irradiance	OGASAWARA F-MS-42	1992/7
Global		
Temperature(dry)	OGASAWARA(crystal)	1992/7
40,10,1.5m		
Wind speed(40m)	OGASAWARA(wind vane)	1992/7
Wind direction(40m)	OGASAWARA(wind vane)	1992/7
Pressure	OGASAWARA(bellows)	1992/7
SPM	HVS(IC)	1992/10

### The outline of a plan in the (near) future

Species	Instrument(Method)
N <sub>2</sub> O	GC(ECD)
CFC	GC(ECD)
CO and H <sub>2</sub>	GC(HgO reduction)
PAN	GC(ECD)
VOC	Thermal desorption Cold Trap injector,GC (ECD,FID)
Isotope of CO <sub>2</sub> and CH <sub>4</sub>	