

Ozone Profile Data @ Pengjia Islet

Dr. Wei-Nai Chen (0000-0003-2134-3806) and **Dr. Charles C.K. Chou (0000-0003-3960-5333)**

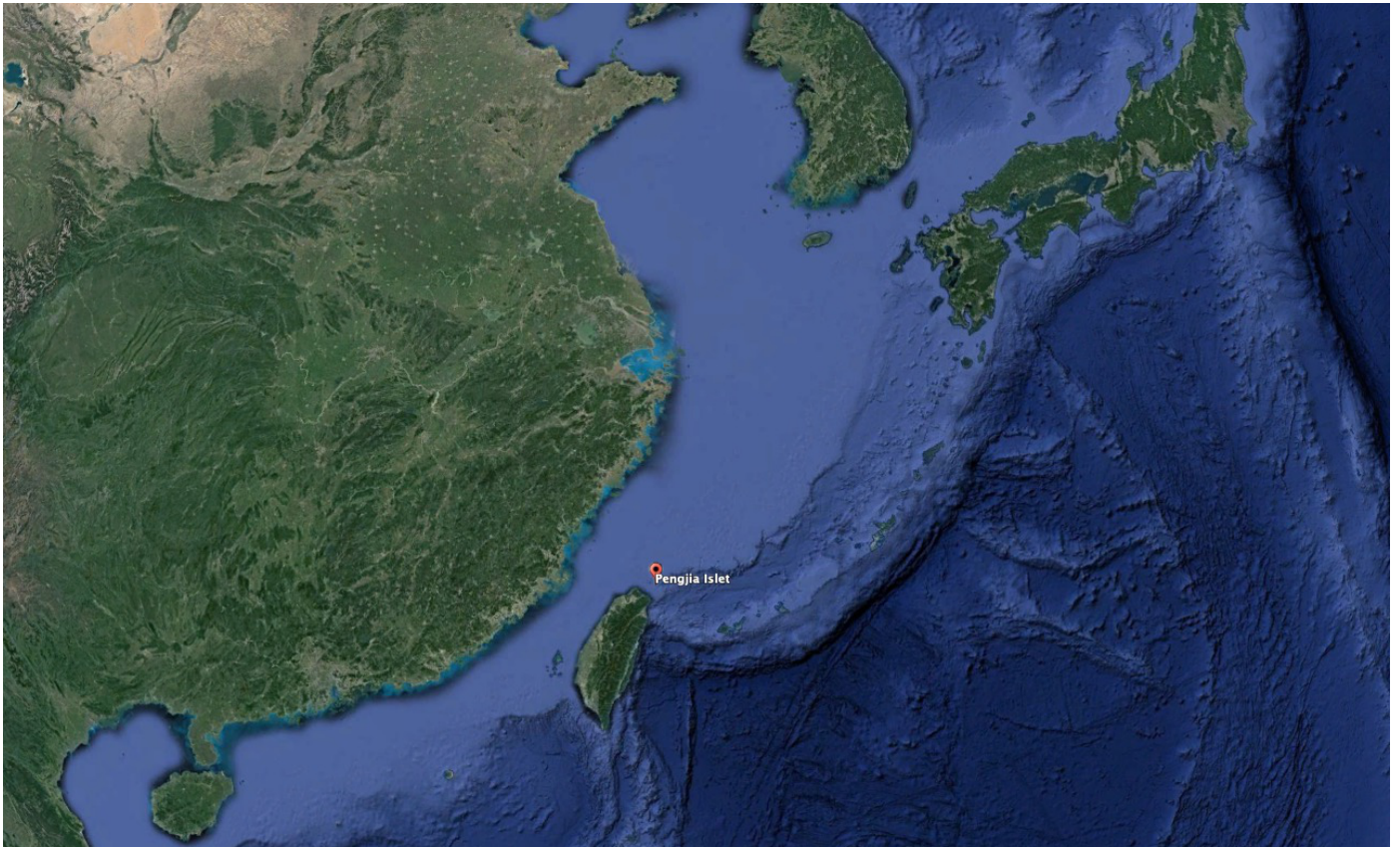
Research Center for Environmental Changes, Academia Sinica, Taiwan

Contact:

wncen@rcec.sinica.edu.tw / ckchou@rcec.sinica.edu.tw

1. Data Set

1. Ozone Vertical Profiles: 8 successful and 3 failed launching.
2. Time period: Aug. 1st - Aug. 29th, 2022.
3. Location: Pengchiayu Weather Station (46695/RCPK) of Central Weather Bureau, Pengjia Islet, Taiwan. **(122°04'17" E, 25°37'46" N)**
4. Data Frequency: 3~4 days (if not failed)
5. Successful Launching: 2022/08/01 04Z, 2022/08/10 03Z, 2022/08/12 03Z, 2022/08/15 03Z, 2022/08/19 03Z, 2022/08/22 03Z, 2022/08/25 03Z, 2022/08/29 03Z
6. Failed Launching: 2022/08/04, 2022/08/7, 2022/08/18
7. Data are in final publication ready format.



2. Data Format

Ascii Format

Launch Time: 2022-08-01 04:04:37

Time (seconds after launching), P (hPa), T (K), U (%), Height (m), O3 (mPa), Tbox (K), Total Ozone, Longitude, Latitude

3. Instrument / EN-SCI ECC Ozonesonde

Specifications (<https://www.en-sci.com/ecc-ozonesonde/>)

Parameter	Specification
Technique	Electrochemical process that generates electrical current in proportion to ozone concentrations
Measured Parameters	Parts Per Billion (PPB)
Operating Pressure	1050-4 hPa

Parameter	Specification
Operating Temperature	Inside flight box 0 – 40 °C
	Outside flight box -90 °C
Power Requirements	12 – 18 VDC, 120 mA
Weight (including battery)	480 g for instrument, including wet battery 240 g for polystyrene flight box
	480 g for instrument, including wet battery 240 g for polystyrene flight box
Flight Box Dimensions	19.1 cm x 19.1 cm x 25.4 cm

Accuracy

hPa	Accuracy	Precision	Resolution
1000	± 5%	±4%	0.3 km
100	± 5%	±3%	0.3 km
10	± 5%	±3%	0.4 km
4	± 10%	±10%	0.4 km