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Introduction

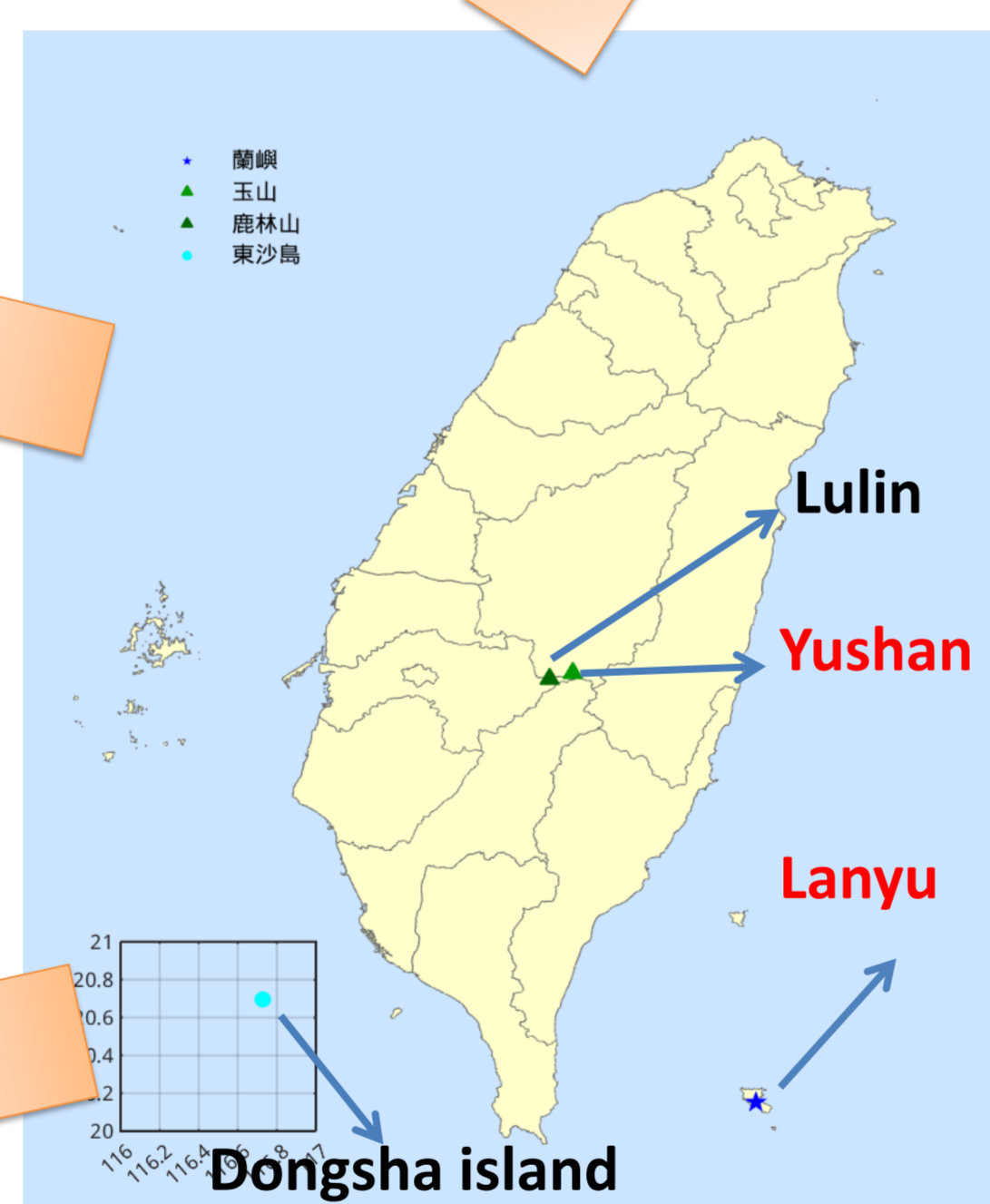
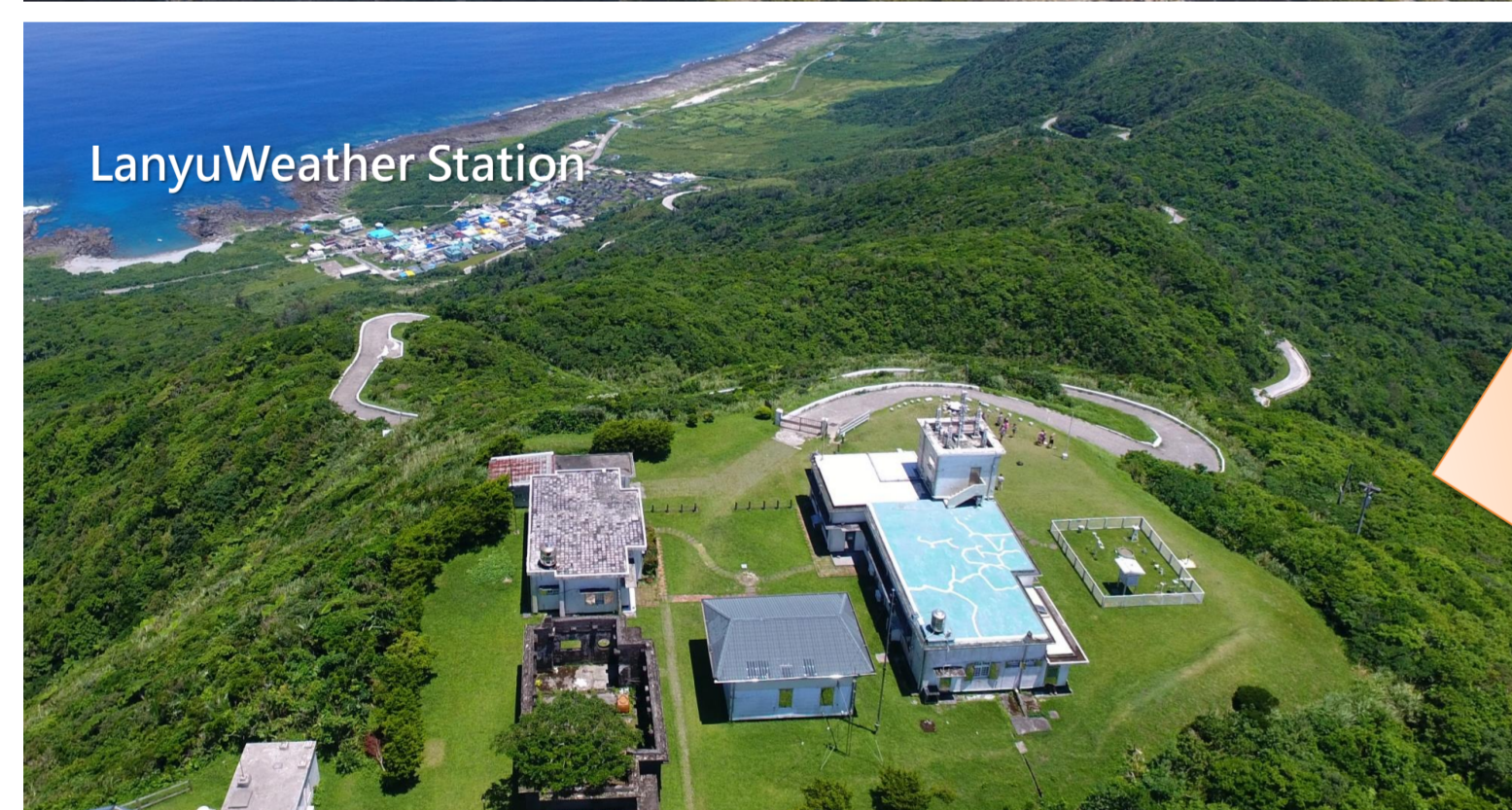
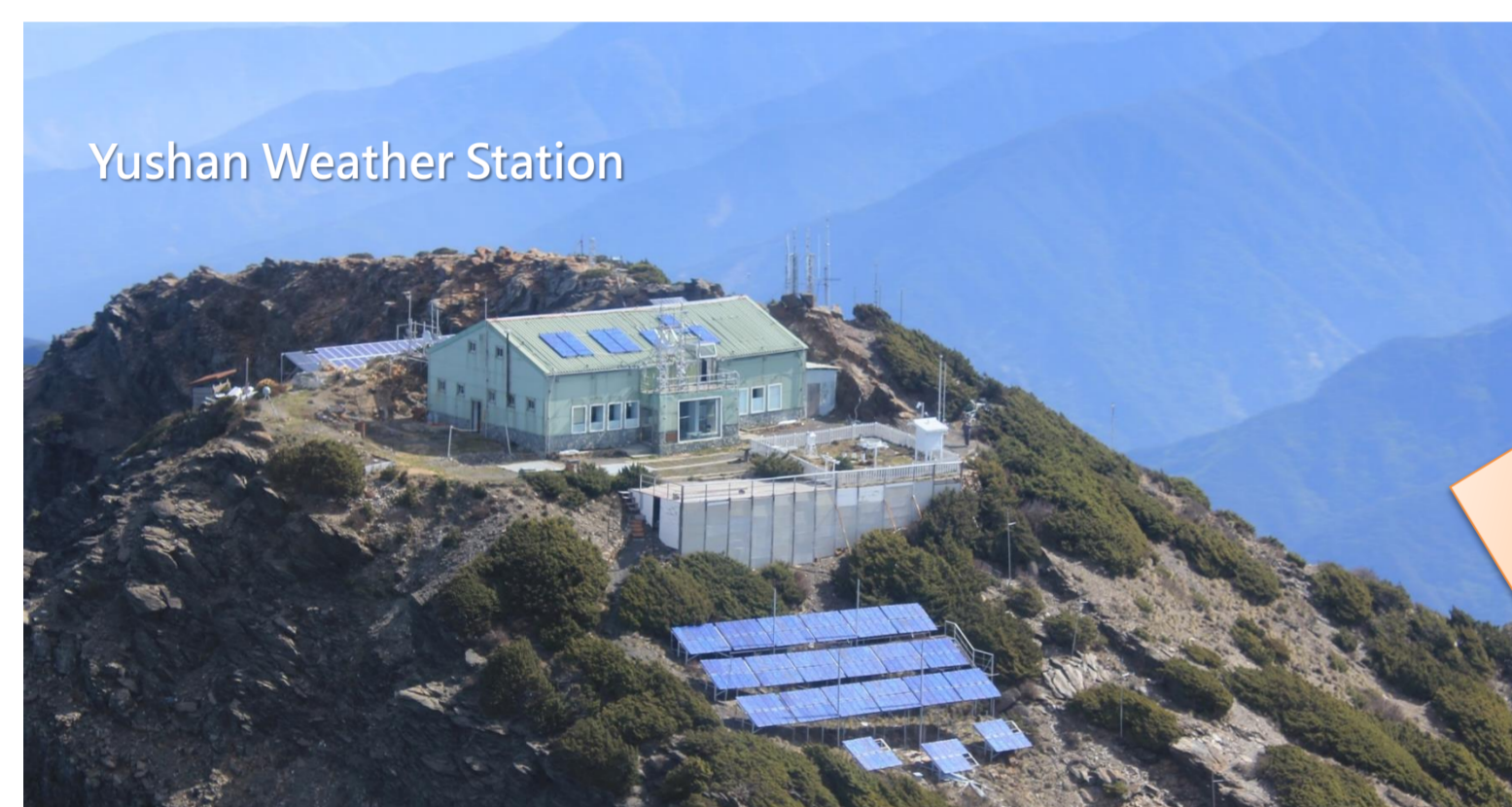
Central Weather Bureau cooperated with Department of Atmospheric Sciences, Nation Central University to set up the solar radiation sites at Mt. Jade (Yushan) and Orchid Island (Lanyu) in 2018, and we will propose these two sties to be BSRN stations.

Yushan weather station (23.49°N, 120.95°E; 3858m) began observing since 1943, and is the highest site in Taiwan, as well as referring to in East Asia, and located on the mountain peak which giving a wide open sky for radiation measurements and within the free troposphere where can prevent aerosol (air pollutants) from local. This is not a vehicle reachable site and electrical source only rely on solar power. People need eight hours climbing one way to reach this site, and instruments are transported by helicopter or manual work. However, based on its particular environment, this site is the excellent position for solar radiation measurement, and provide typical data as reference in western pacific ocean.

Lanyu weather station (22.04°N, 121.56°E; 324m) is located at the peak area of Orchid (Lanyu) Island in the offshore 70 km of eastern Taiwan, and was built by Japanese in 1940 for typhoon monitoring propose in the beginning. Because of its special geographic location, the site is characterized to clean maritime environment and the forefront of typhoon watch. In 1947, Central Weather Bureau (CWB) started to carry on the routine meteorological observations and continue to present. Since 1995, the CWB initial the in-situ measurements of atmospheric compositions (i.e., carbon dioxide, nitrogen oxide, ozone, sulfur dioxide, and carbon monoxide) as background atmospheric condition in the western Pacific Ocean. We purpose to upgrade in-situ measurements and to set up a high quality radiation observation in Lanyu site, and will continue provide high standard data and serve as an international collaboration platform in the science community.

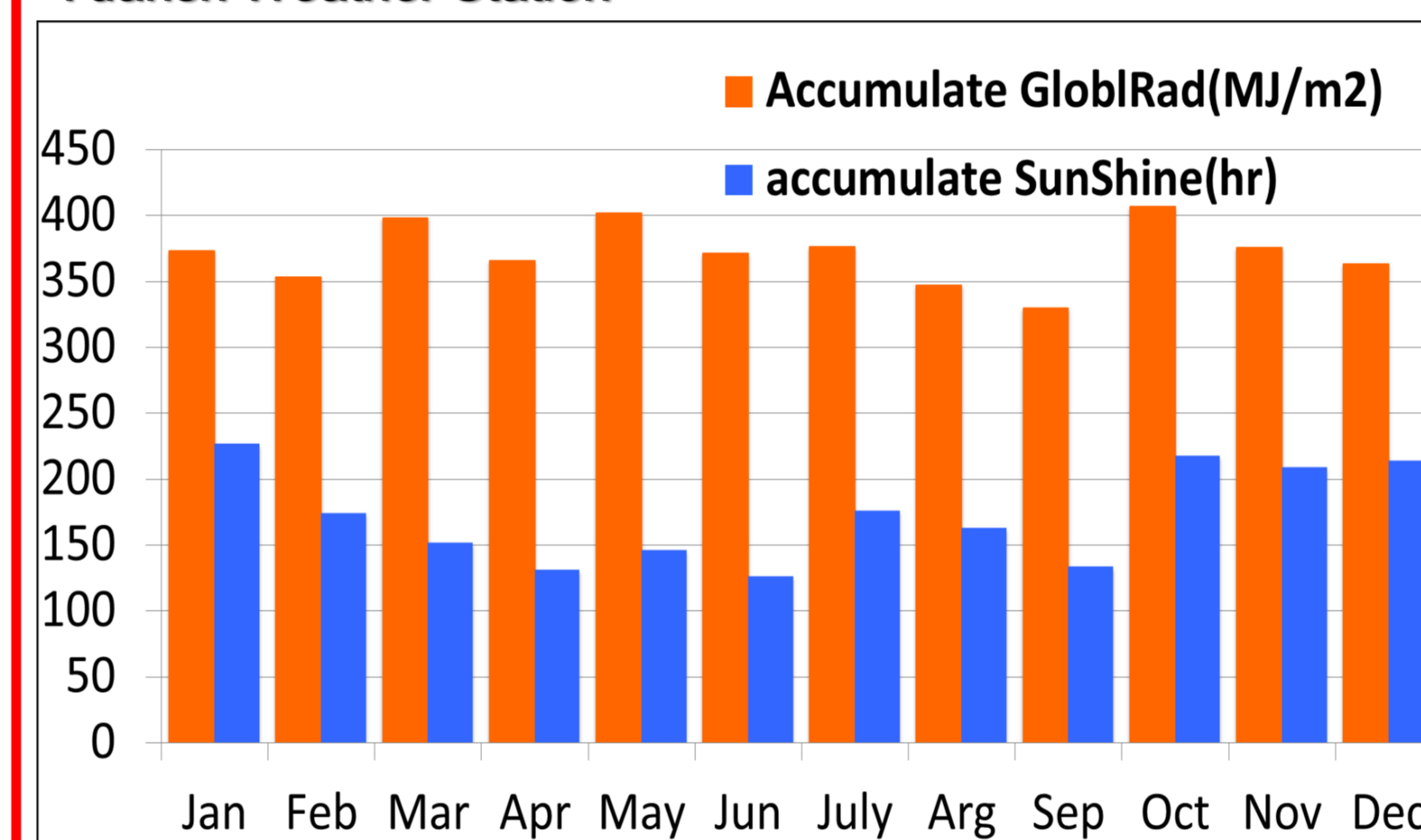
Location

Station	Lanyu Weather Station	Yushan Weather Station
Longitude	121.56° E	120.95° E
Latitude	22.04° N	23.49° N
Elevation	324 m	3858 m

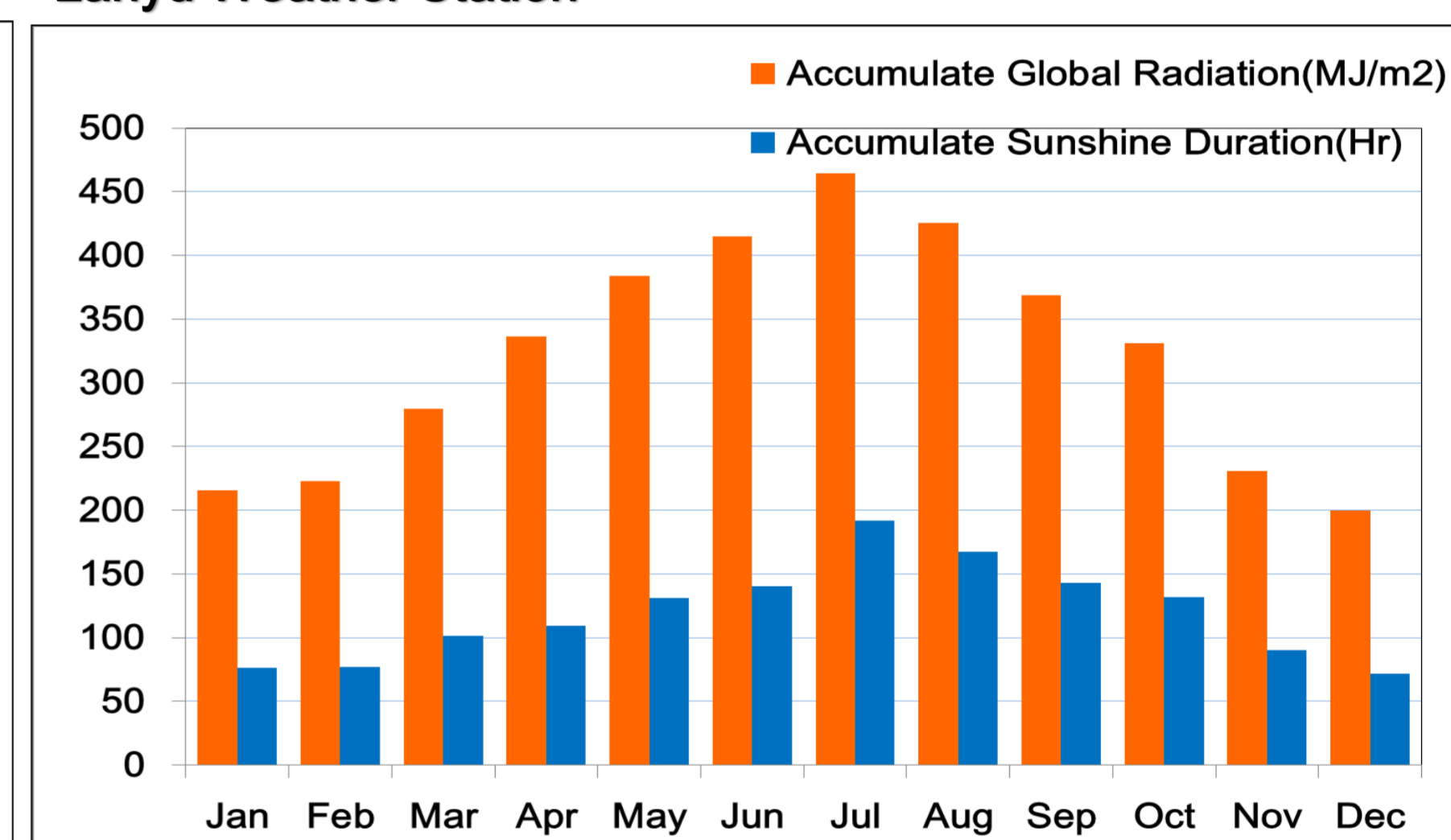


Solar Radiation

Yuahsn Weather Station



Lanyu Weather Station



	Instrument	
Observation Platform	Kipp&Zonen CMP21 (with CVF4)	
	Kipp&Zonen PQS1 PAR	
	Mobotix MX-Q25M-Sec-D12	
Sun Tracker	Kipp&Zonen SOLYS Gear Drive Sun Tracker	Kipp&Zonen CMP21 (with CVF4)
		Kipp&Zonen CGR4 (with CVF4)
		Kipp&Zonen CHP1

