

Overview on the CIMO intercomparison campaign Summer 2010 in China

Tim Oakley, ET-UASI Chairman & Project Leader



Who am I?



- Upper-Air and Remote Sensing
- Network Manager





Who am I - continued?



- 20+ Years working in U/A systems development / R&D
- Involved & participated in most of the previous WMO Radiosonde intercomparisons
- Logistics and planning – Operational Delivery
- Expert Team – Upper Air Systems Intercomparison Chairman + Project Leader for China test.

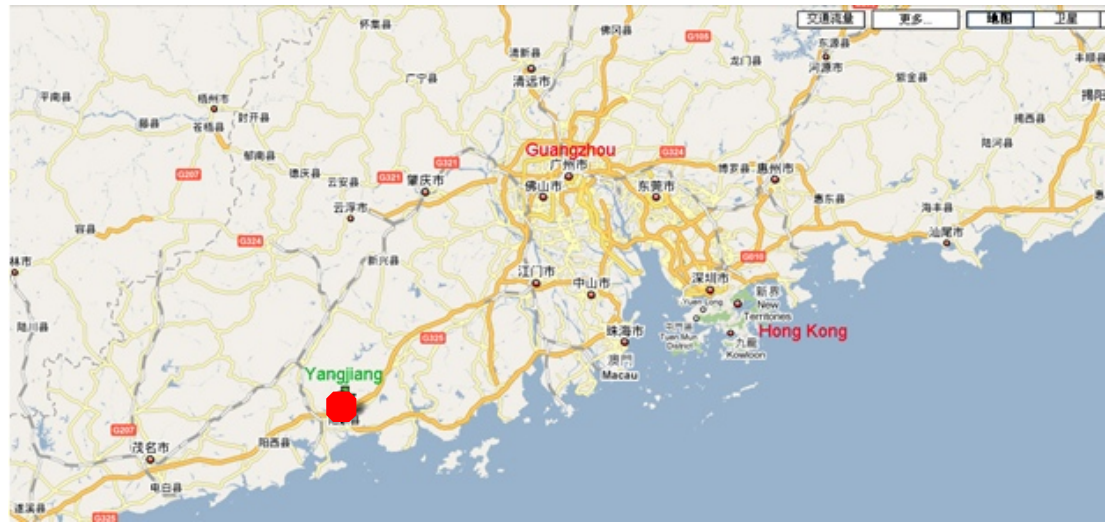
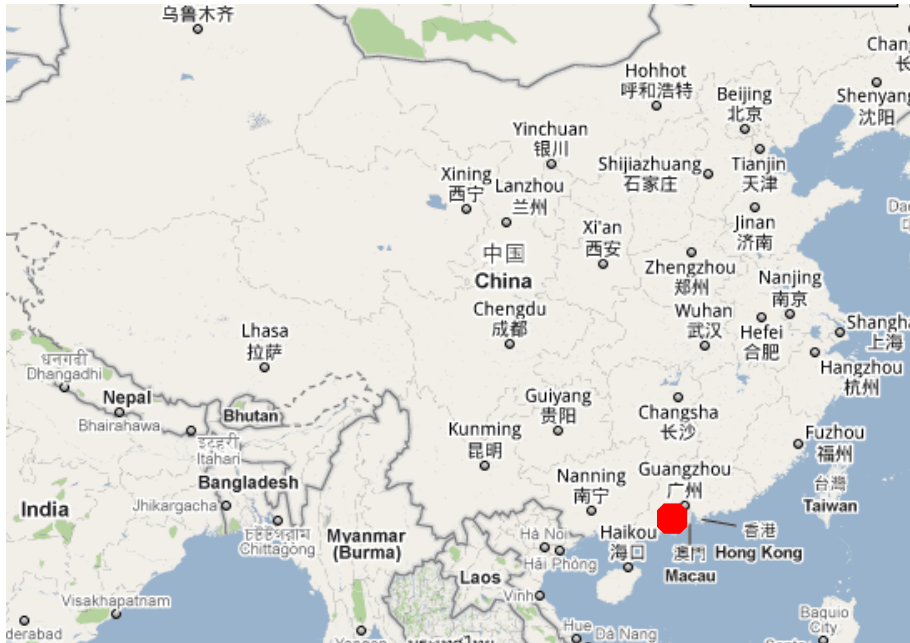


China Intercomparison 2010.

- Hosted by CMA
- Site - Yangjiang station
upper-air sounding since May 1966.
situated just south of the Tropic of Cancer
altitude of 88m
21°50' N latitude and 111°58' E longitude.
- 12th to 31st July 2010



Yangjiang station - Location







危险
勿上
雷达
辐射



Intercomparison - Objectives

- The main objective of this intercomparison is to test in the tropical / subtropical moist conditions the relative performances of operational QRS in conjunction with the SSI. The results will be used to advise Members on a selection of QRS suitable for RBSN/RBCN and its GUAN sub-network as well as advise GCOS on a selection of systems suitable for GCOS Reference Upper-Air Network (GRUAN).

Intercomparison - Objectives

- To improve the accuracy of daytime operational QRS measurements and the associated correction procedures to provide temperature and relative humidity accuracies currently possible with night time measurements.
- To assess the accuracy and availability of the GPS wind measuring systems.
- To evaluate the performance of geometric and geopotential height values obtained from GPS radiosondes (with a possibility to check the associated algorithms).
- To evaluate the quality and reliability of SSI, and to use this information to evaluate the quality of the working references for the radiosonde test.
- To evaluate the day-night differences of temperature, relative humidity of operational QRS and SSI against available remote sensing observations; and to identify, as far as possible, the origins of differences.
- To recommend suitable QRS systems to be used in the RBSN/RBCN and GUAN.
- To assess the magnitude of changes introduced by new radiosonde designs.
- To identify the best practices used in the preparation of operational QRS radiosondes for launch.
- To evaluate the added value of using remote sensing equipment in radiosonde systems intercomparisons as recommended by ETRSUT & T experts (following testbed evaluations).
- To publish the Executive Summary within three months, the draft Final Report within six months and the approved Final Report within nine months after the Intercomparison in the *WMO Instruments and Observing Methods Report* (IOM) series.

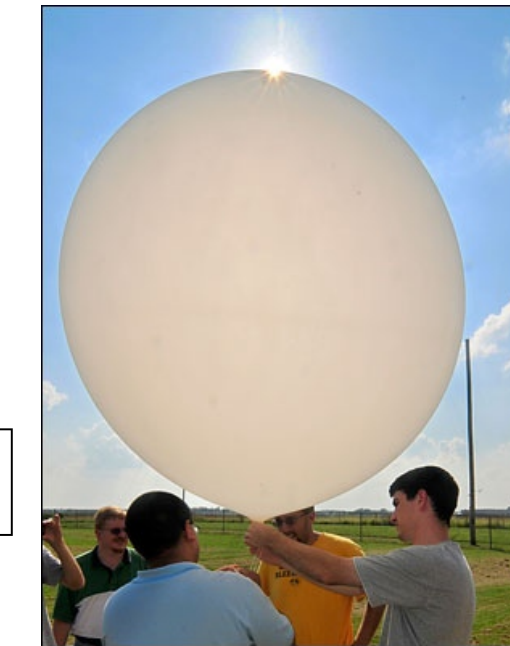


Operational high Quality Radiosonde Systems (QRS)

11 'confirmed' QRS systems



China GPS/403 – 2



China LBAND



China GPS/403 – 1

Scientific Sounding Systems (SSI)



meteolabor ag

Snow-White



CFH

VAISALA

Multi-thermistor - ATM

Proposed flight schedule + grouping

Local time (UTC+8)	Group
01.15	Group A
07.15	China operational radiosonde
08.00	Group B
08.45	SSI Group
13.00	Group A
19.15	Operational Radiosonde
20.00	Group B
20.45	SSI Group

Group A [01.15,13.00] 2000 gr balloon	China L-Band	1675
	Internet	404
	Modem	402
	Graw	401
	Meteolabor (+ Snow White)	403
Group B [08.00, 20.00] 2000 gr balloon	China GPS1	401
	China GPS2	402
	LMSippican	403
	Vaisala	404
	Meisei	405
SSI Group [08.45,20.45] 1200 gr balloon	CFH on Internet	404.5
	Vaisala reference	403.5
	Other references?	402.5, 401.5

Side Meeting tonight at Hotel

QUESTIONS

