The Upper Air Observations Status and New Development in China

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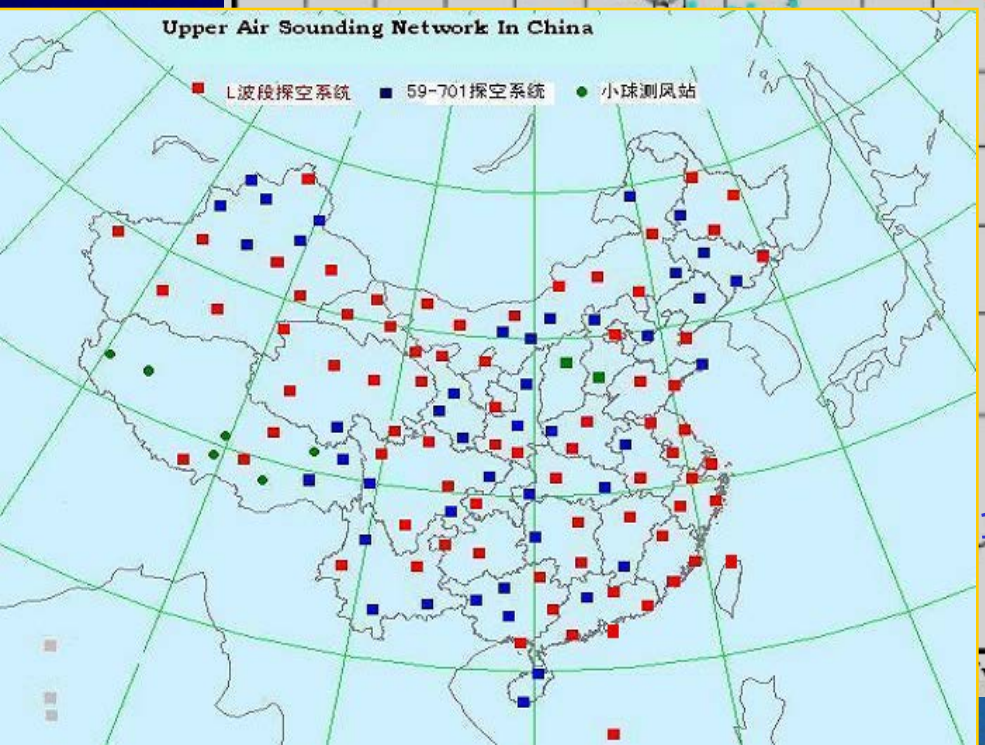
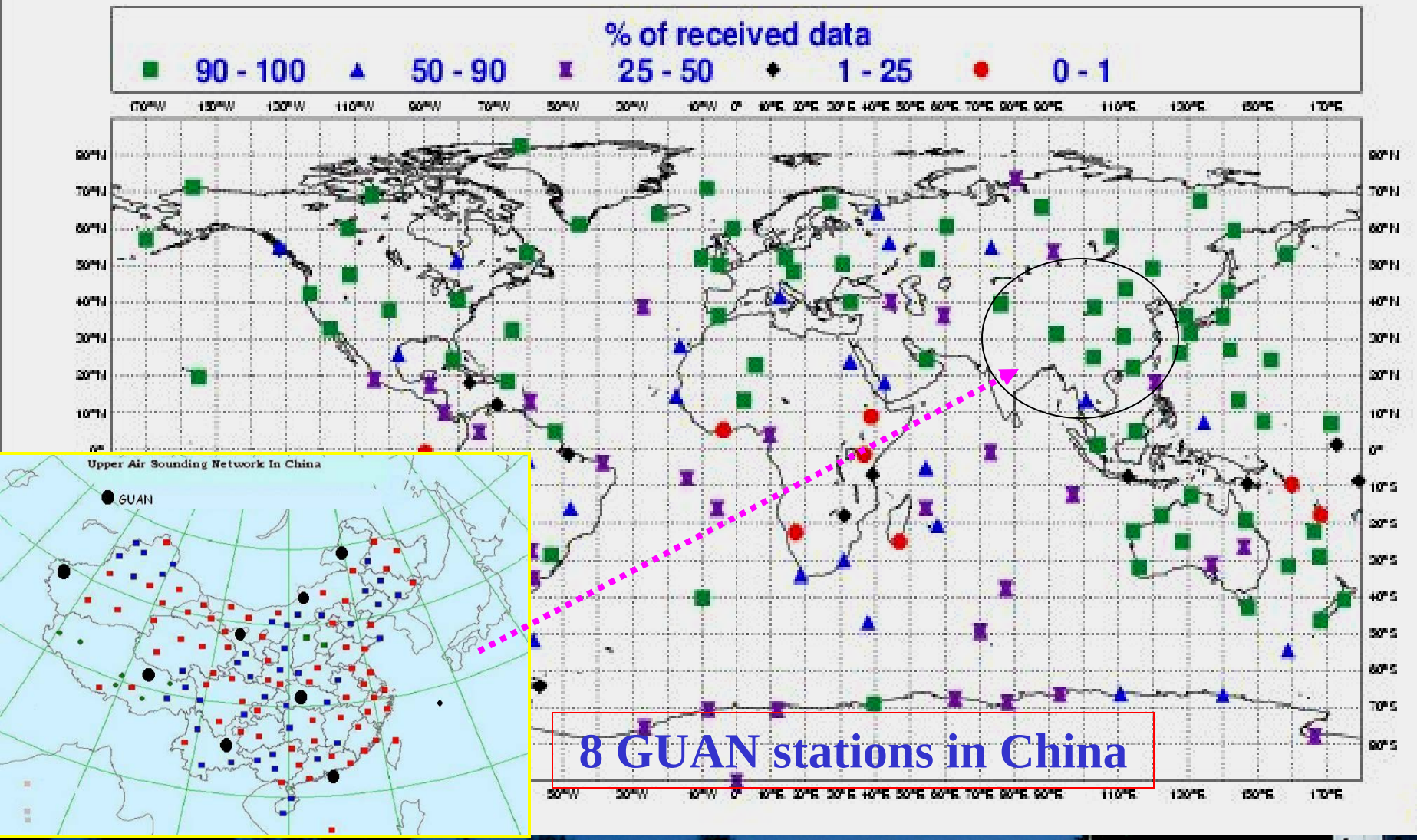
Global Upper Air Observation Network



124 upper air sounding stations in China

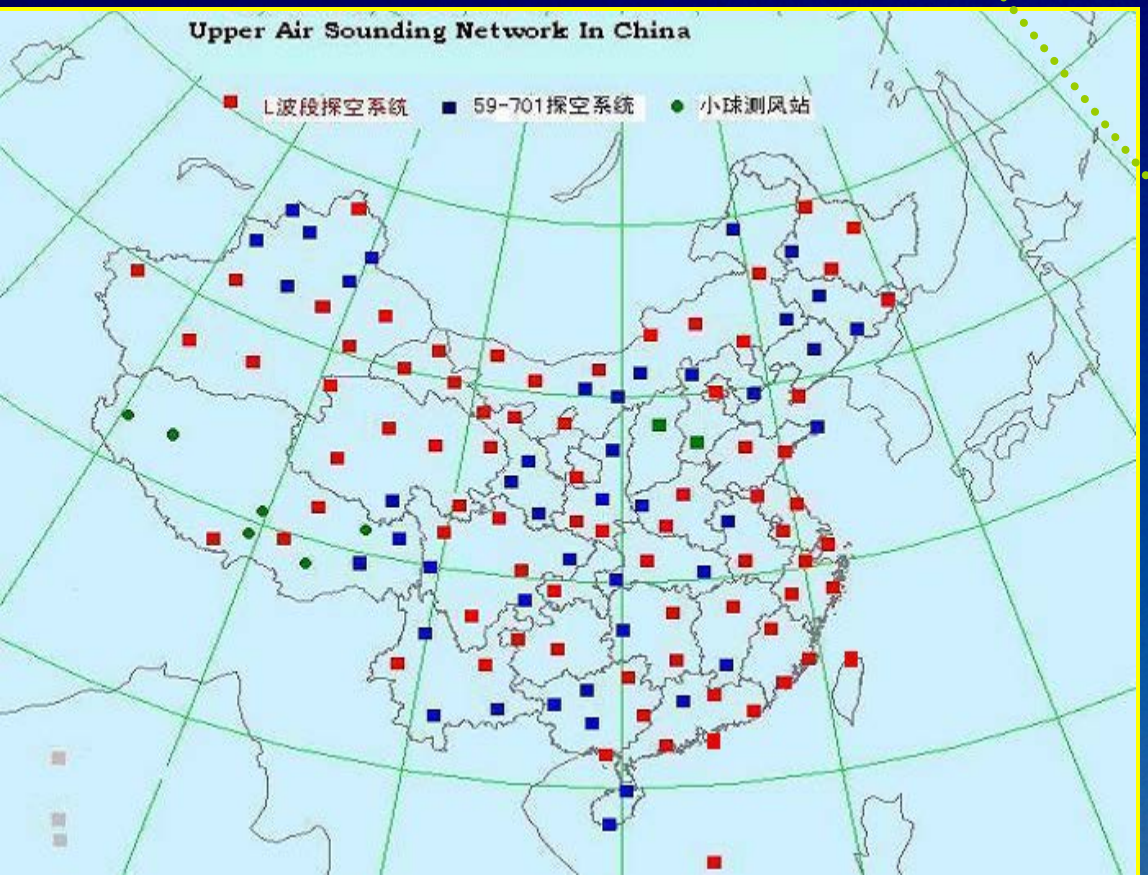
ypes (early 2002)

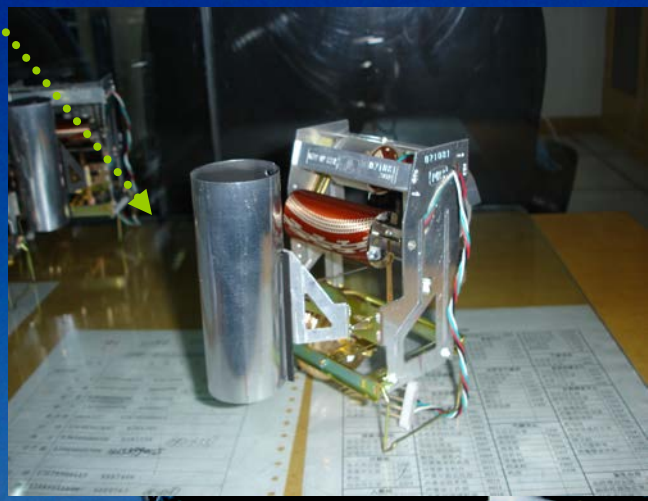
GUAN STATIONS APR 2005
Frequency of RECEPTION data at ECMWF
Level: 300 hPa Wind SUMMARY 00/12 UTC



Upper Air Sounding Technology

- 80 stations use electronic radiosonde
- 40 stations use *mechanical radiosonde*

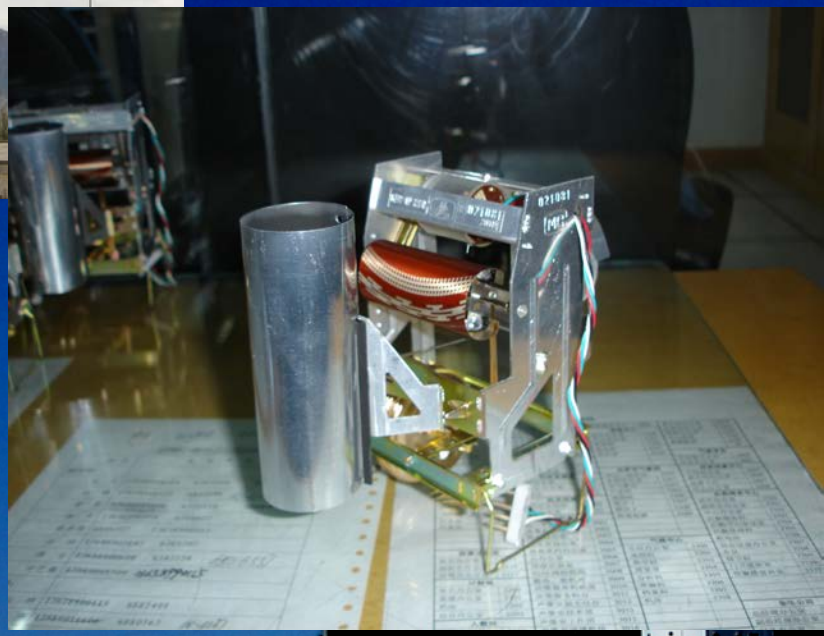




L Band Upper Air Sounding System

Antenna

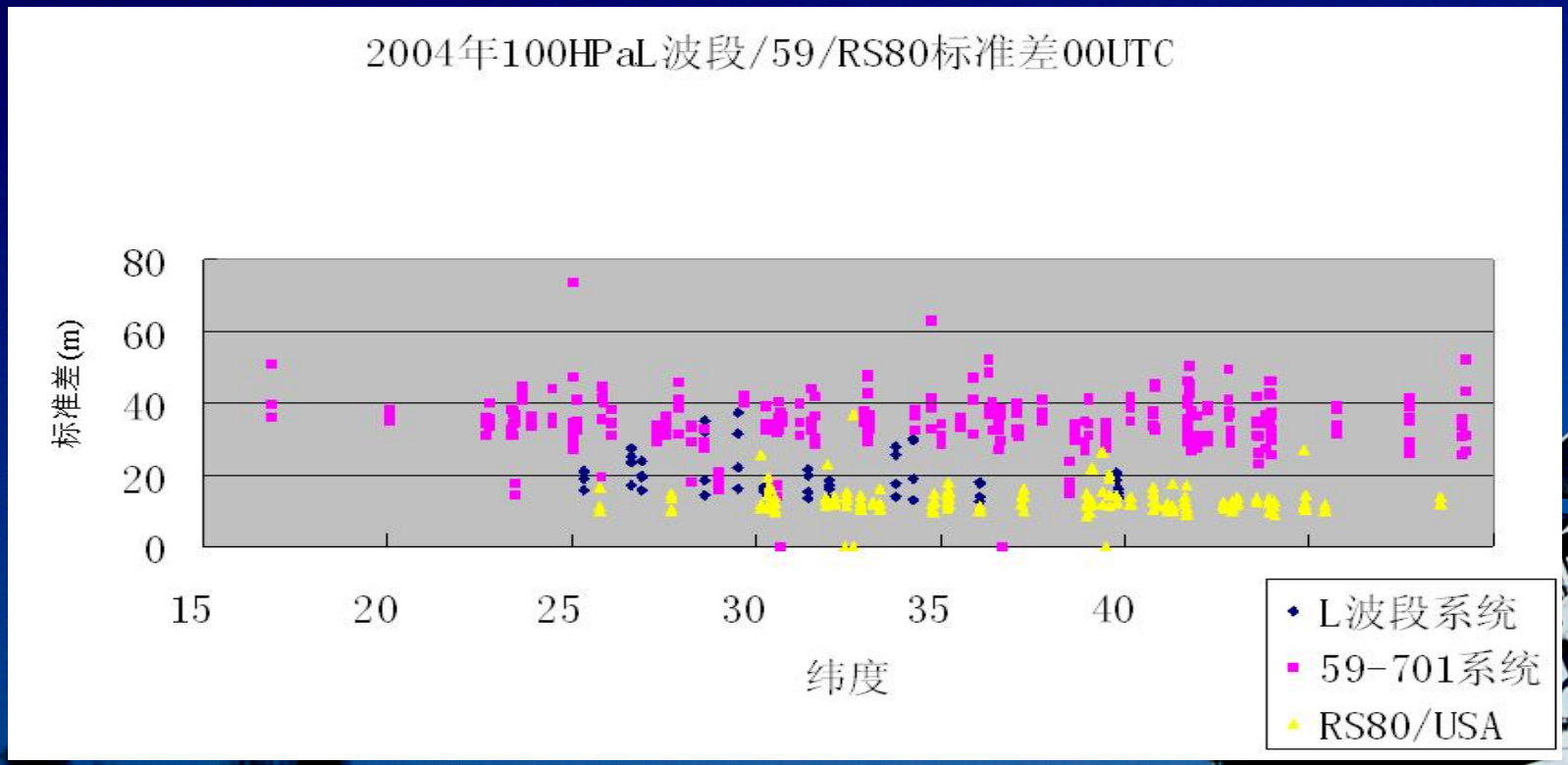

GFE(L)1型二次测风雷达
26.07.2004 08:26



The old system (Tape 59 Mechanical Radiosonde and 701 Secondary Windfinding Radar)

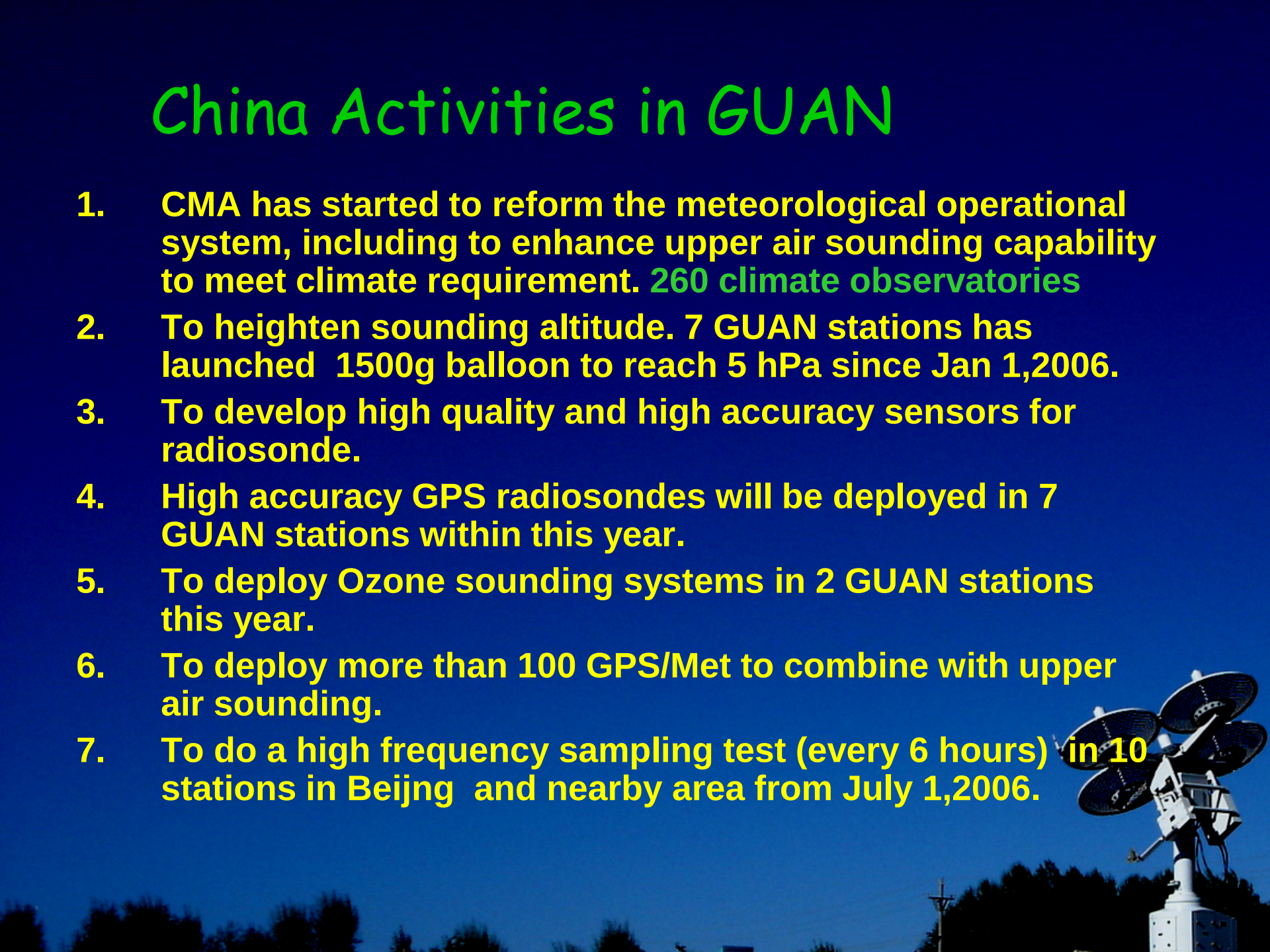
- The data analysis by ECMWF shows, the data bias of L band sounding system are good quality as same as RS80 radiosonde of Vaisala. The accuracy of the new upper air sounding system is more better than the old one. The rest of upper air stations in China will launch high quality electronic radiosonde to replace the mechanical radiosonde in the next two year.

ECMWF Statistic OB-FG 100 hPa SD (L band/59/RS80)s



China Activities in GUAN

1. CMA has started to reform the meteorological operational system, including to enhance upper air sounding capability to meet climate requirement. 260 climate observatories
2. To heighten sounding altitude. 7 GUAN stations has launched 1500g balloon to reach 5 hPa since Jan 1,2006.
3. To develop high quality and high accuracy sensors for radiosonde.
4. High accuracy GPS radiosondes will be deployed in 7 GUAN stations within this year.
5. To deploy Ozone sounding systems in 2 GUAN stations this year.
6. To deploy more than 100 GPS/Met to combine with upper air sounding.
7. To do a high frequency sampling test (every 6 hours) in 10 stations in Beijng and nearby area from July 1,2006.



Suggestion for GUAN

1. To set up 《A Guide for Reference Network》, to identify the technical specifications, sampling frequency, etc.
2. To recommend some sounding systems available to GUAN stations for developing countries and provide a part of sustentation.
3. Hope sincerely to build the reference stations based on the GUAN stations in China.