

# LORAN-C Based Windfinding in Meteorology

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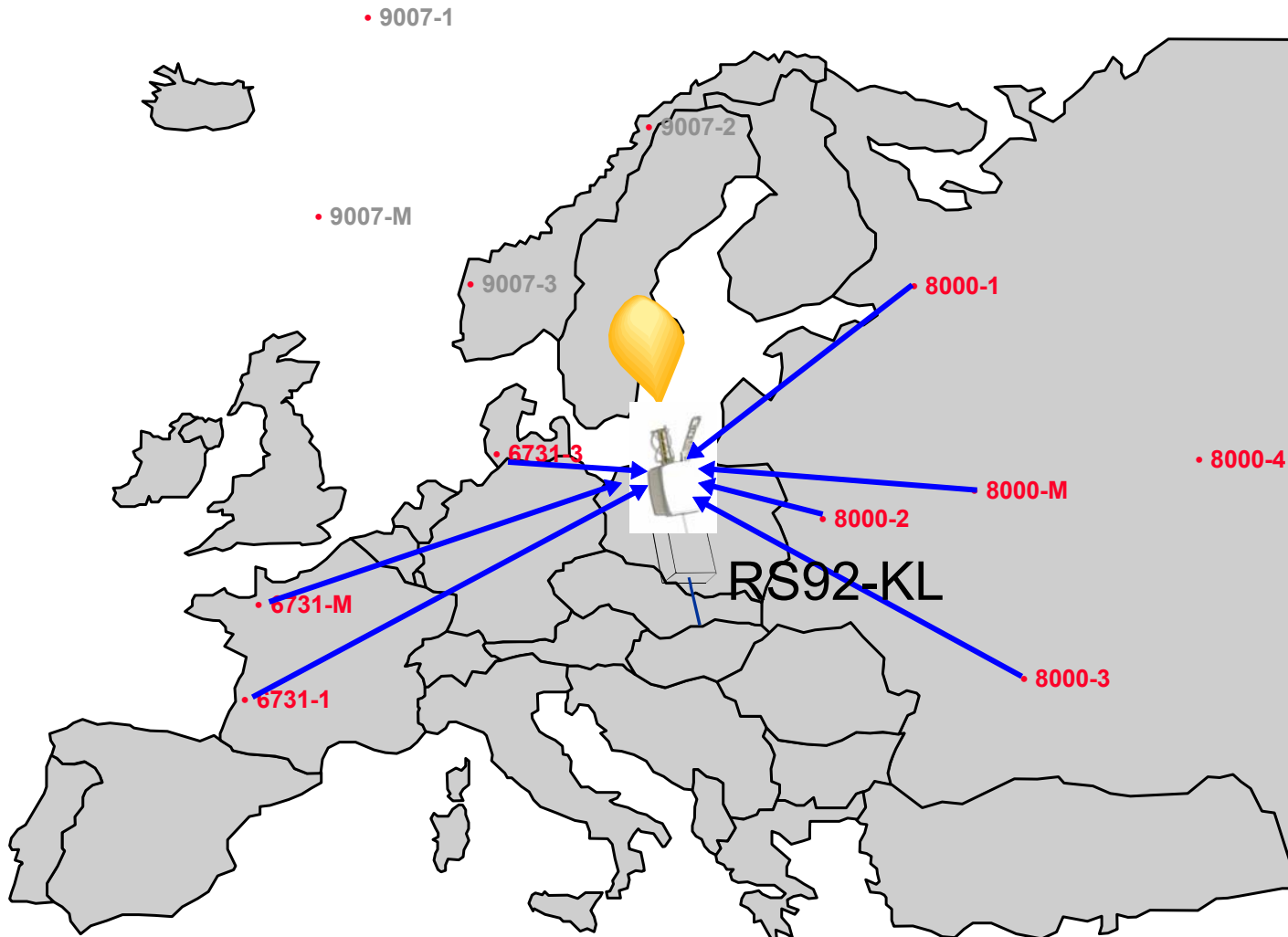
# Weather balloon



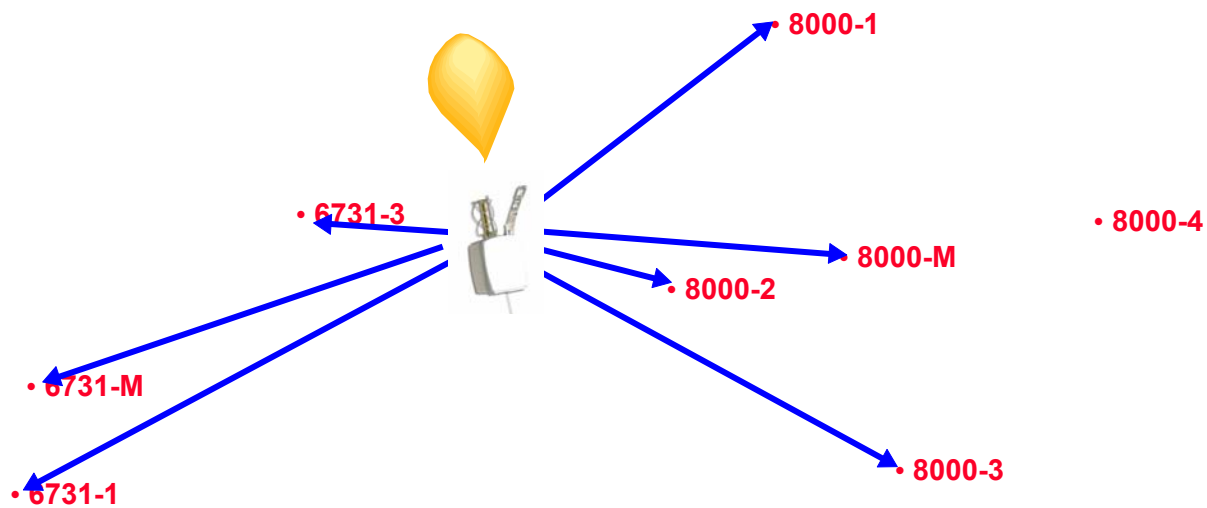
# LORAN-C sounding system



# Radiosonde receives LORAN-C signals



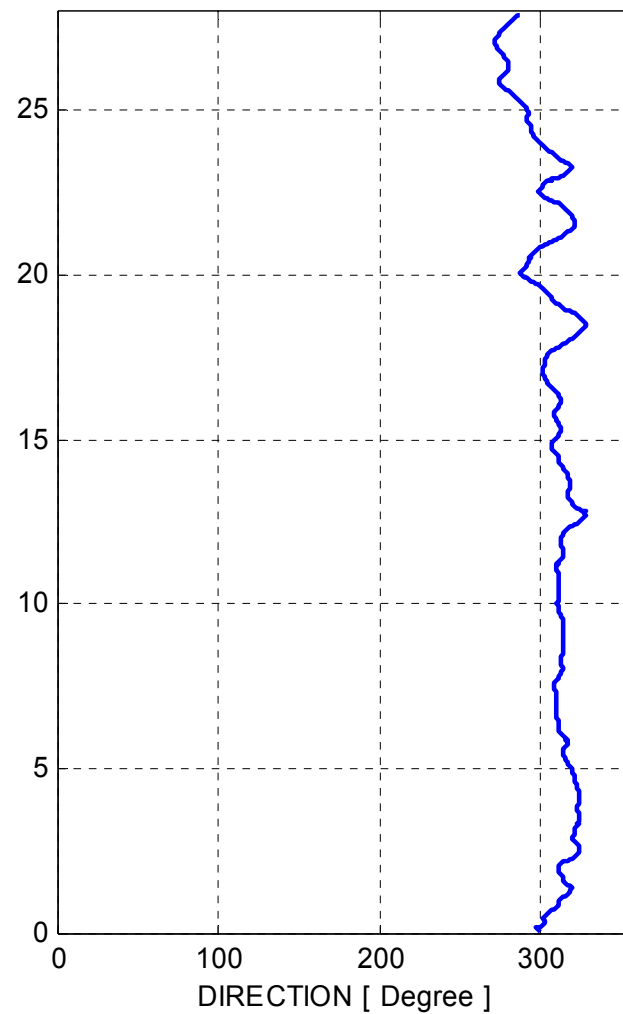
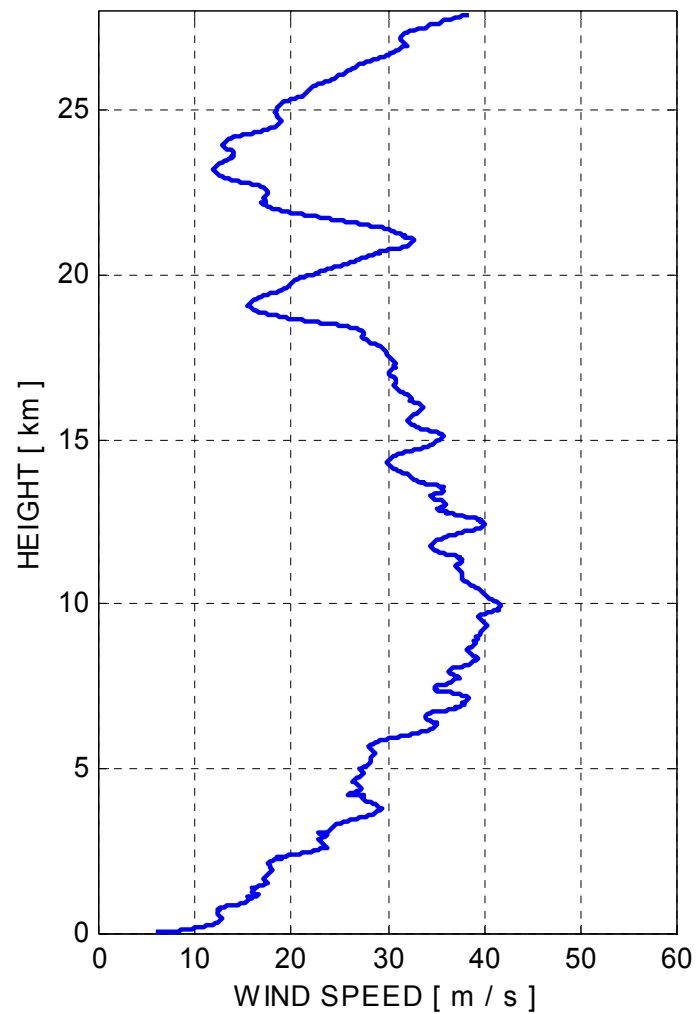
# Velocity components



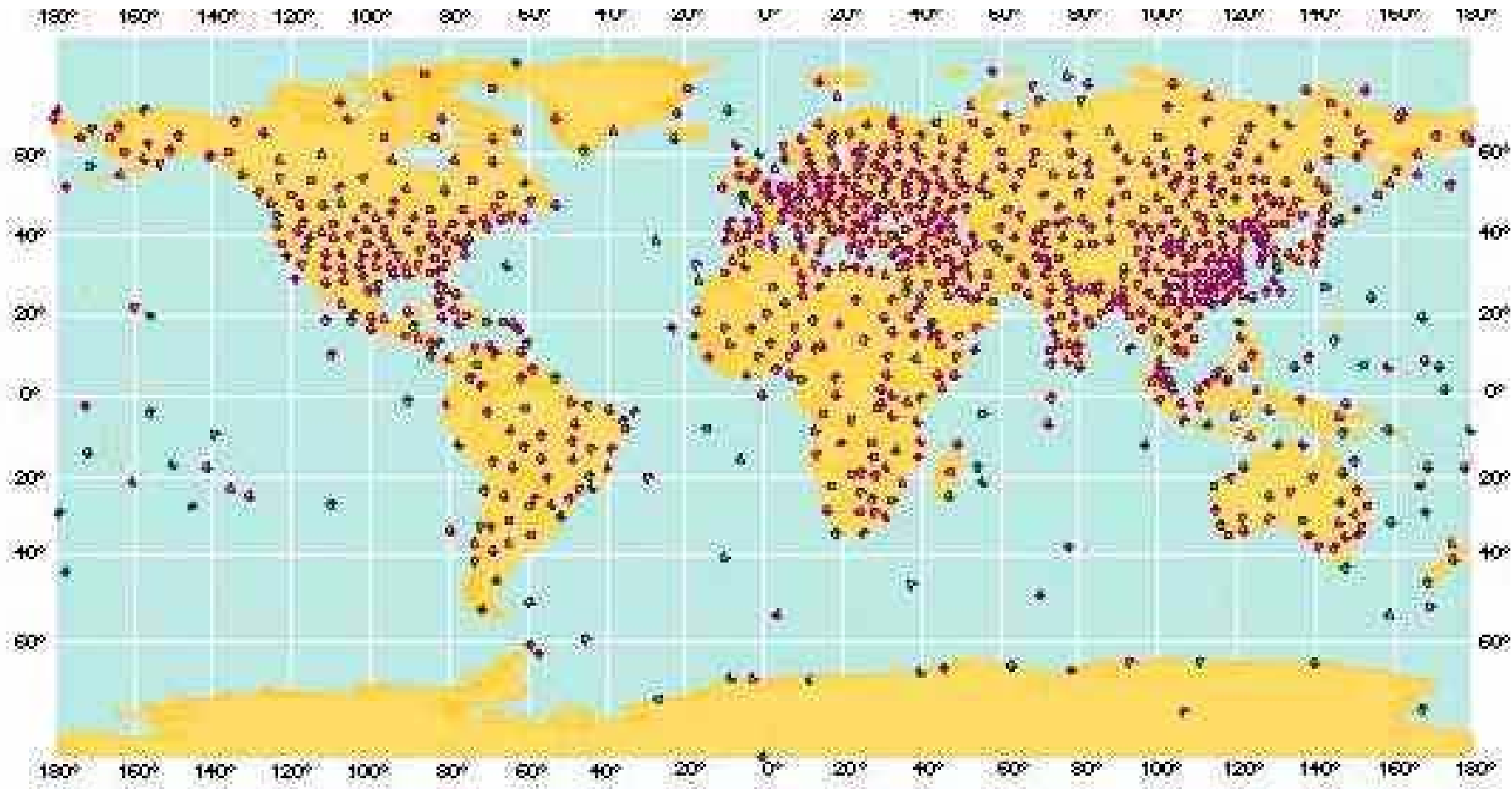
LoranVelocityComponent\_01.wmf, 2000-10-17 / JJa

# Wind profile 0-30 km

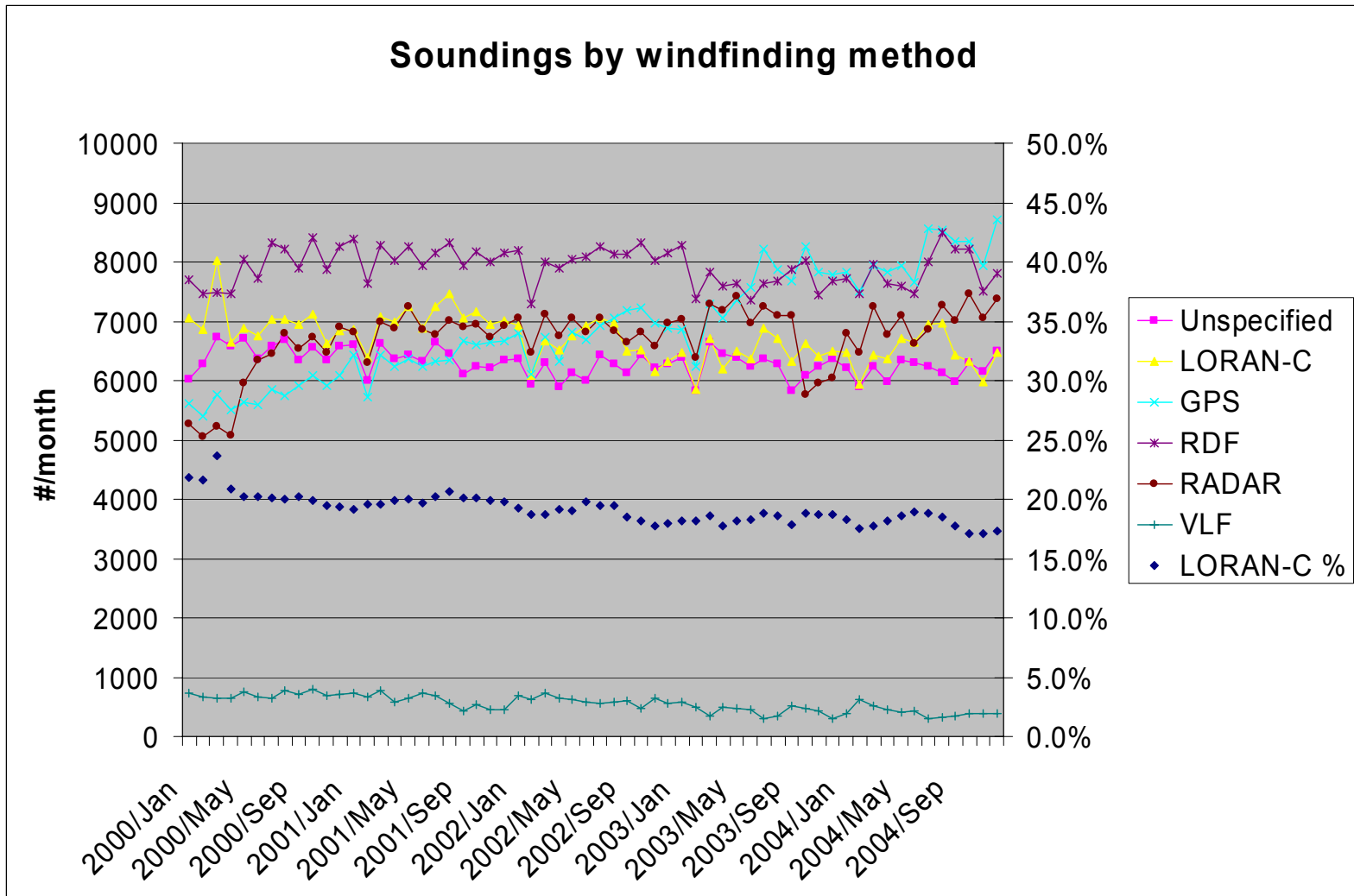
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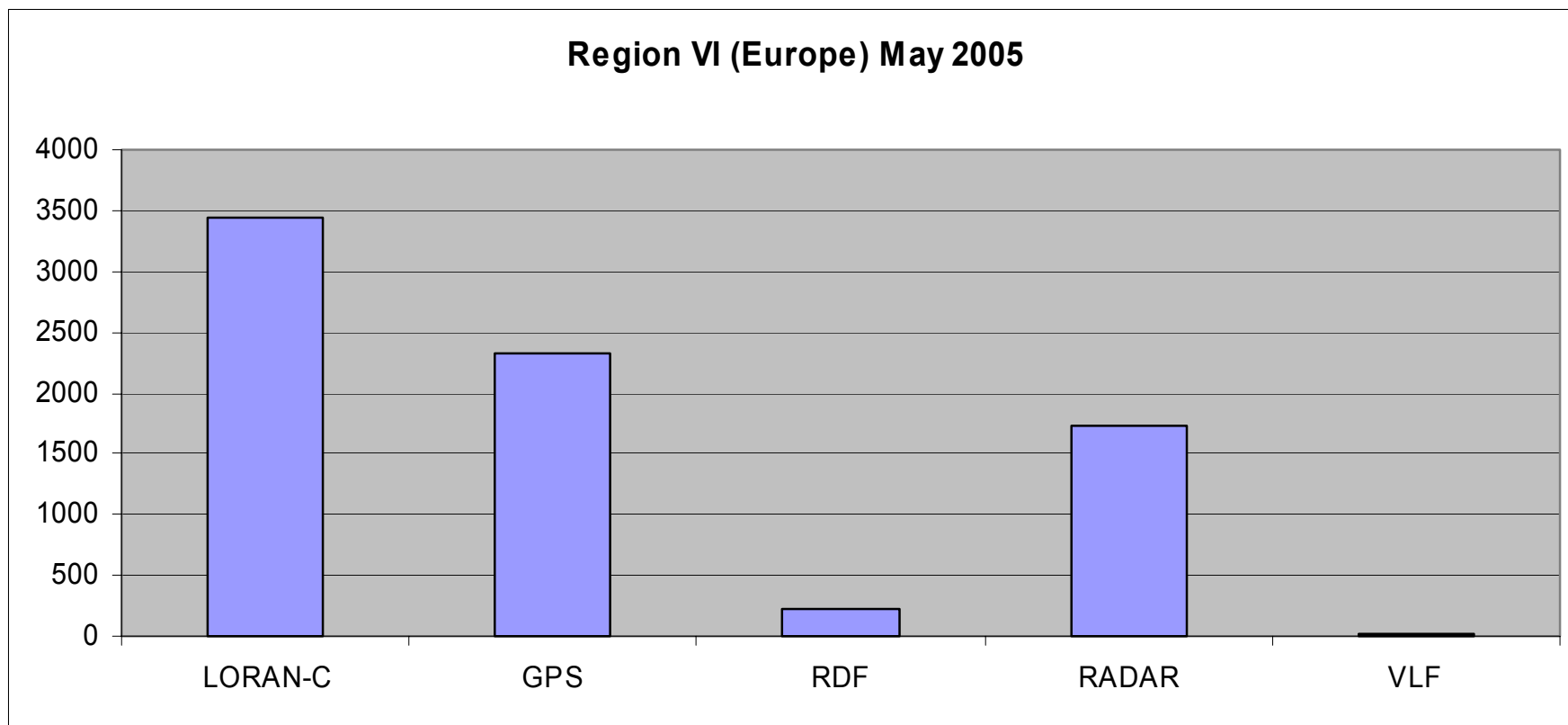
# Synoptic sounding station network



# Global statistics 2000-2004



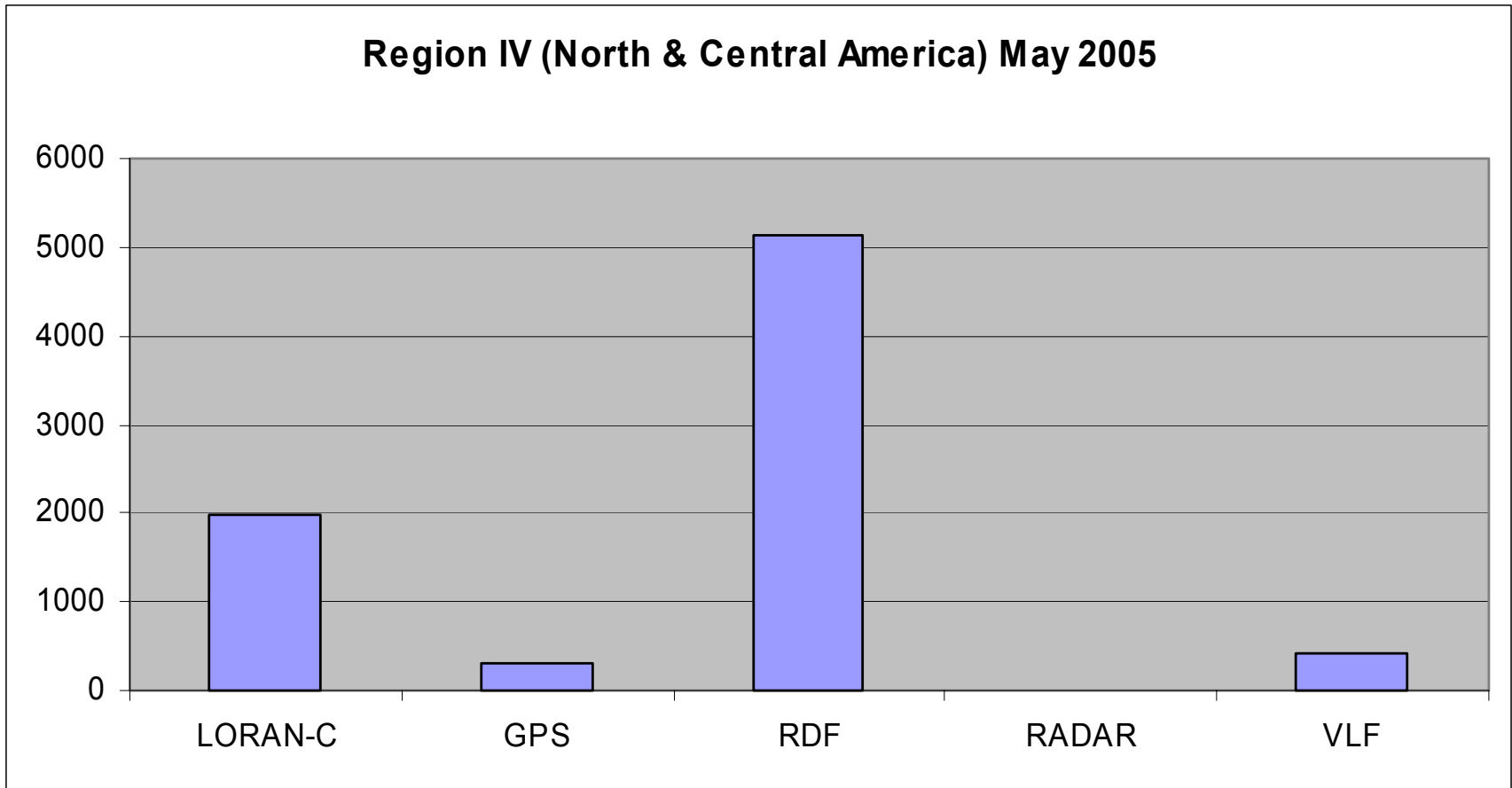
# Europe



**26 countries, 65 stations**

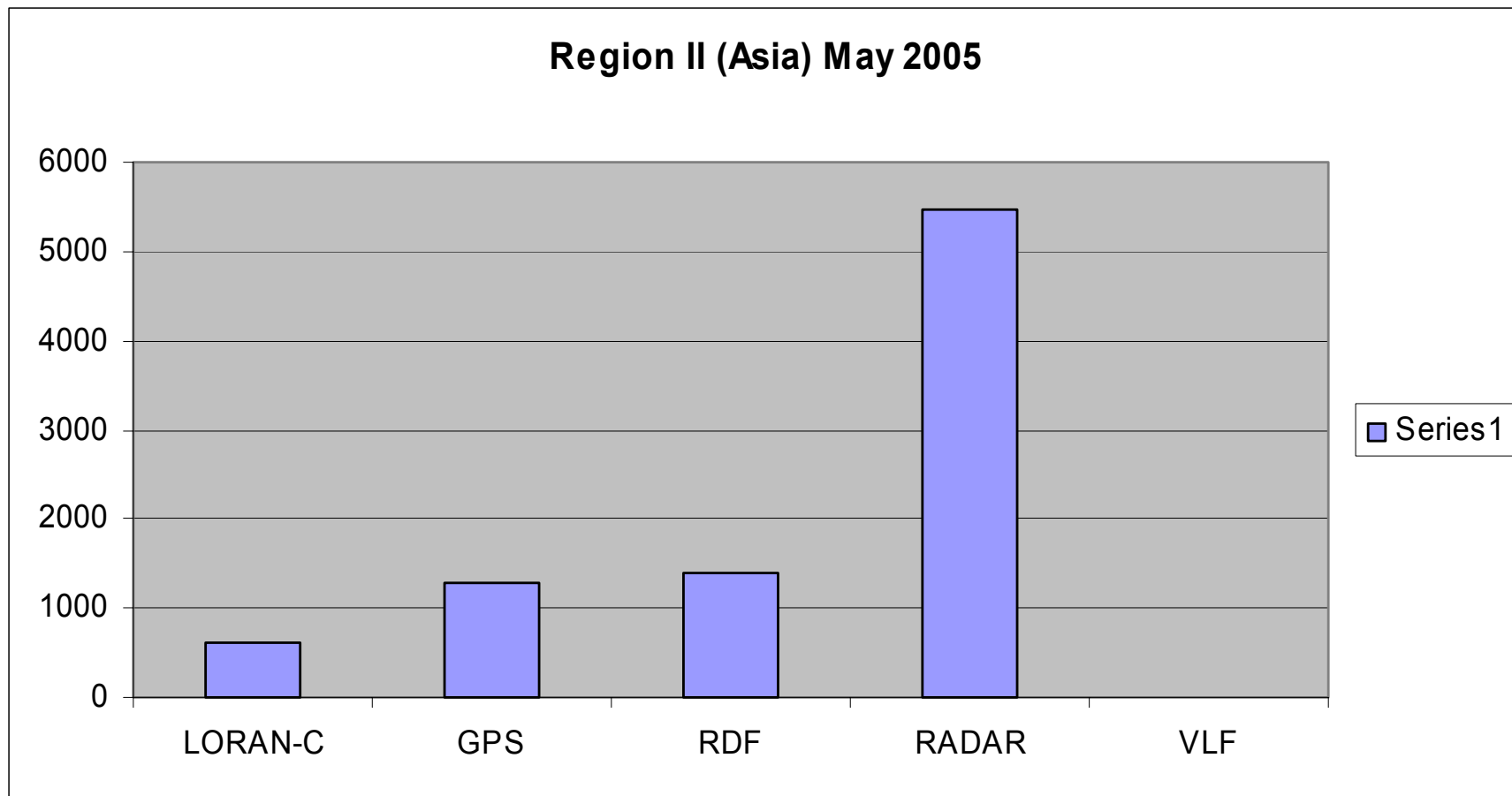
Closure of NELS will have major implications in 2006, expect > 35% reduction of LORAN-C use

# North and Central America



3 countries, 41 stations

# Asia



2 countries, 8 stations

# Summary

Availability and continuity of LORAN-C service are the two most important aspects for meteorological use

LORAN-C is considered the primary method for upper air windfinding where available based on:

- Ease of use
- Cost
- Reliability
- Accuracy

If LORAN-C were to be terminated, the financial consequences to the meteorological community would be drastic