



# THE HISTORY AND FUTURE OF LAPAN'S INVOLVEMENT IN THE MAGDAS PROJECT

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LAPAN

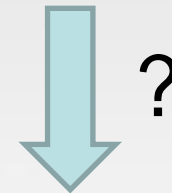


# When did we start?

- Total Solar Eclipse 1983.
- Prof. Yumoto and team (Nagoya University) observed in Cepu



Solar Eclipse



Geomagnetic Field

- Lectures about the geomagnetic field observation and research.
- STELAB Nagoya Univ, Solar Terrestrial Energy Program (STEP)
- Moved to Kyushu University



# LOCATION OF GEOMAGNETIC OBSERVATION



# Sumedang



- $6.91^{\circ}$  S  $107.83^{\circ}$  E
- $17.17^{\circ}$  S dip latitude
- Since 2002
- $\Delta H$ ,  $\Delta D$ ,  $\Delta Z$  components
- Time resolution: 1 sec



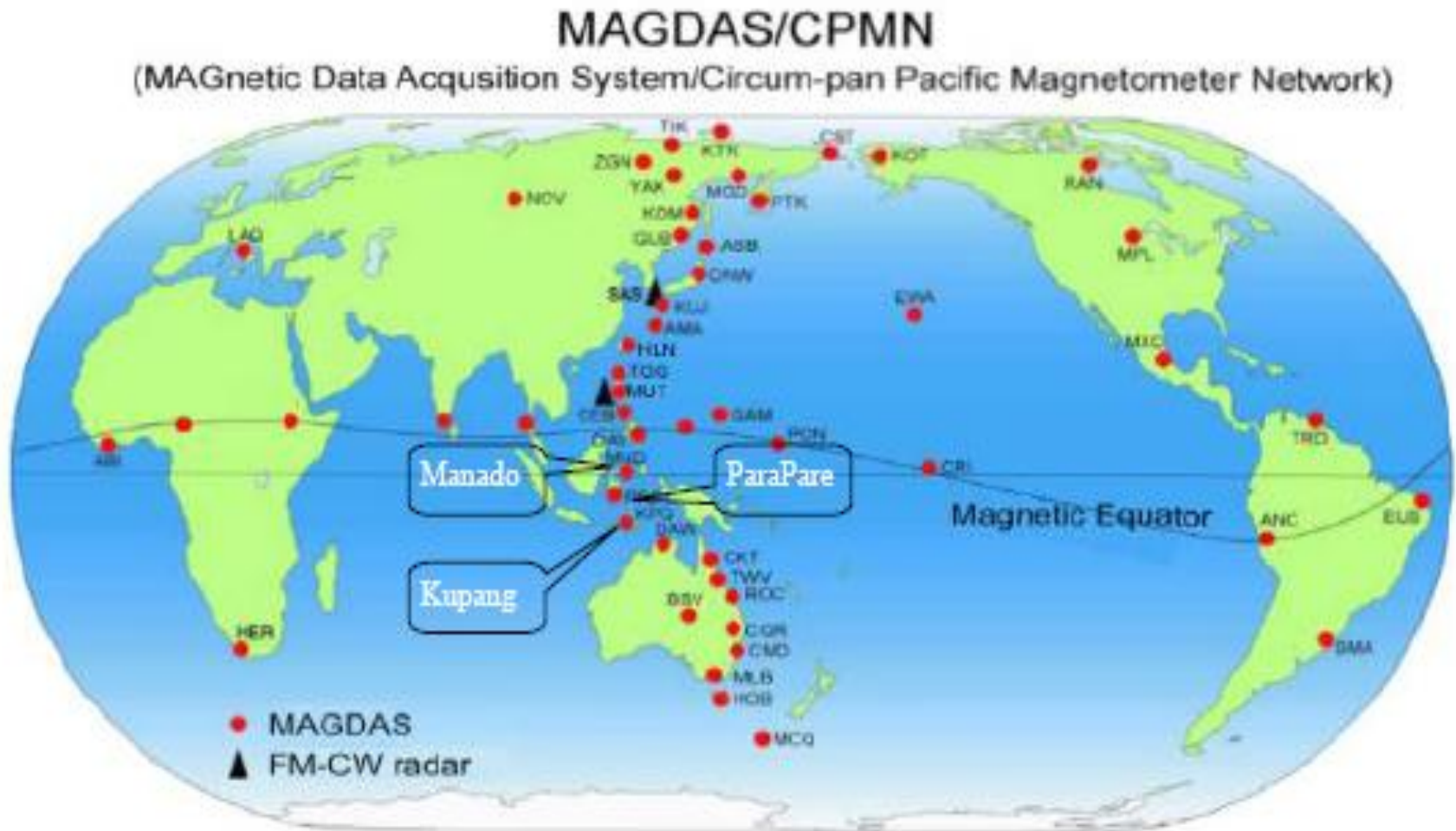
# Kototabang



- $0.22^{\circ}$  S  $100.32^{\circ}$  E
- $10.36^{\circ}$  S dip latitude
- Since 2003
- $\Delta H$ ,  $\Delta D$ ,  $\Delta Z$  components
- Time resolution: 1 sec



# MAGDAS Network in Indonesia



# Pontianak

- $0.05^{\circ}$  N  $109.34^{\circ}$  E
- $10.21^{\circ}$  S dip latitude
- December 2011





# Manado

- $1.30^{\circ}\text{N}$   $124.93^{\circ}\text{E}$
- $6.91^{\circ}\text{S}$  dip latitude
- Since 2005
- H, D, Z components, F
- Time resolution: 1 sec



# Parepare

- $3.98^{\circ}$  S  $119.65^{\circ}$  E
- $12.38^{\circ}$  S dip latitude
- Since 2005
- H, D, Z components, F
- Time resolution: 1 sec



# Kupang



- $10.21^{\circ}$  S  $123.65^{\circ}$  E
- $19.58^{\circ}$  S dip latitude
- Since 2006
- H, D, Z components, F
- Time resolution: 1 sec



# Jayapura

2°35'S 140°46'E



# Data

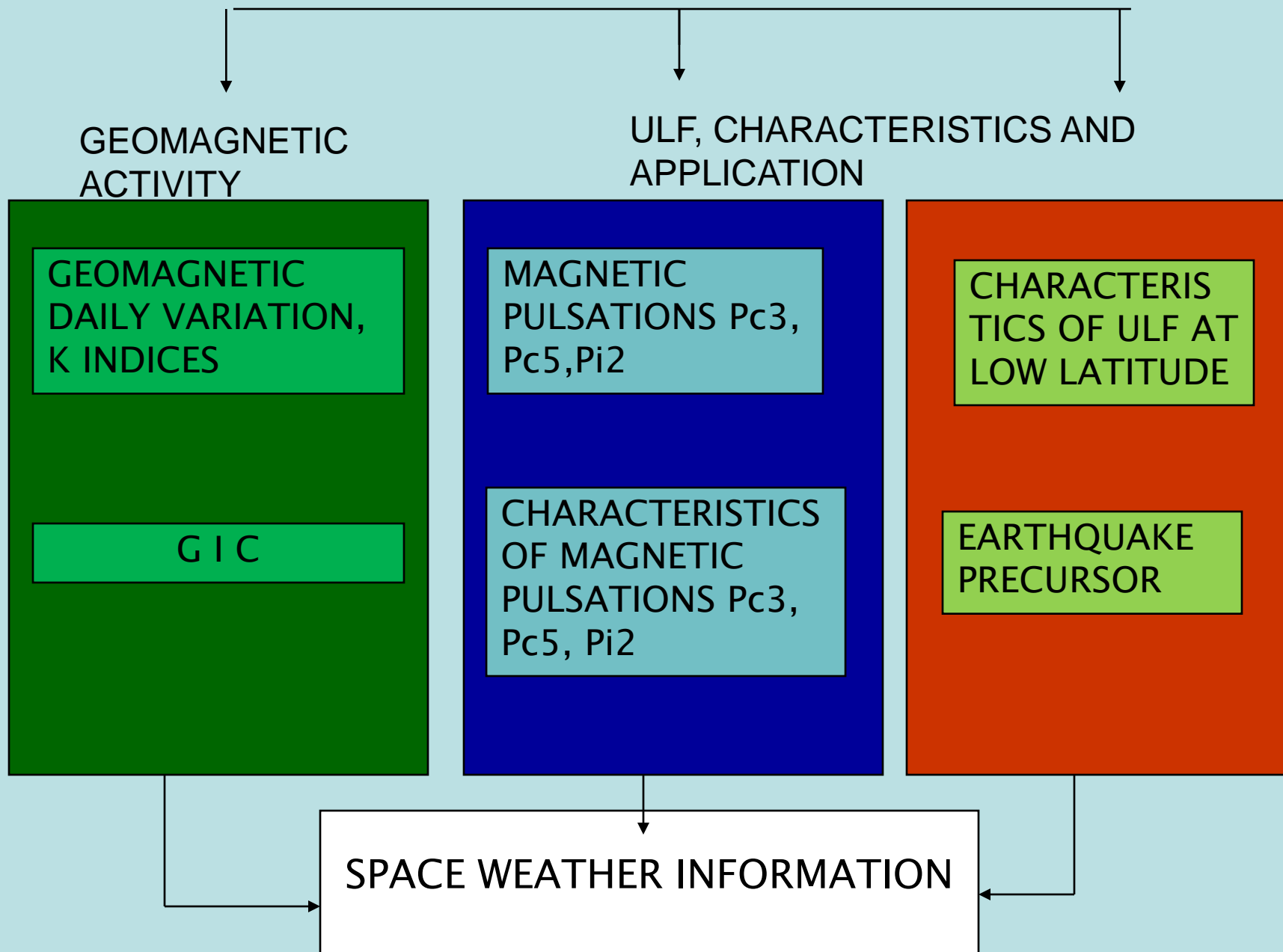
- Transferred to Bandung (near real time)

• LAPAN → BMKG

→ Kyushu Univ /  
ICSWSE



# SPACE WEATHER PROGRAMS



- Research
- PhD and Master thesis?



# COLLABORATION

- KYUSHU UNIVERSITY, JAPAN
- BMKG (AGENCY FOR METEOROLOGY, CLIMATOLOGY, AND GEOPHYSICS)
- NAGOYA UNIVERSITY, JAPAN





# Partners

- BMKG (AGENCY FOR METEOROLOGY, CLIMATOLOGY, AND GEOPHYSICS)
- P3GL (MARINE GEOLOGICAL INSTITUTE)
- PLN (INDONESIAN POWER COMPANY)
- BADAN GEOLOGI (GEOLOGICAL AGENCY)
- LIPI (INDONESIAN INSTITUTE OF SCIENCE)
- UNIVERSITIES

