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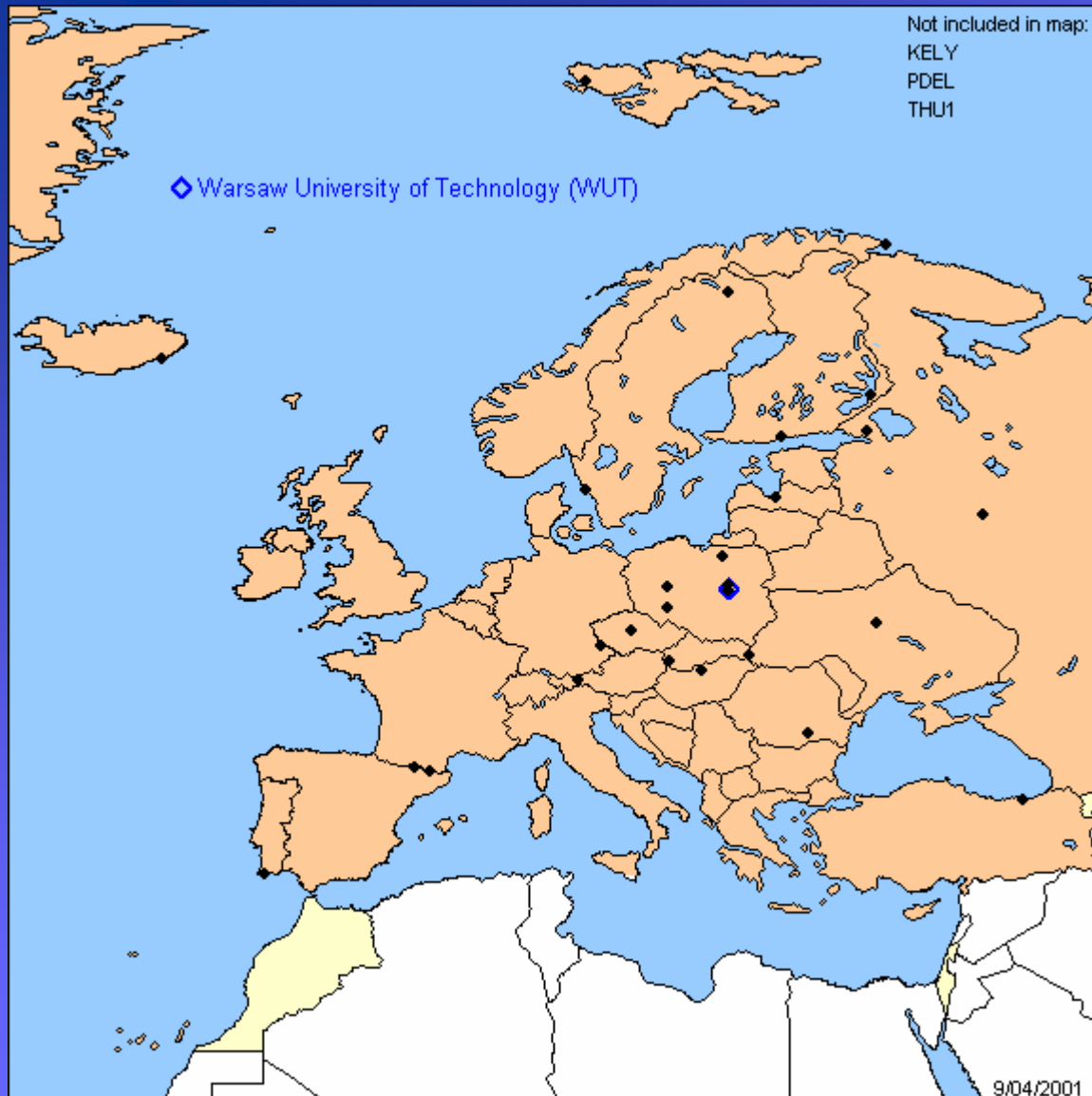
WUT LAC

Status Report

CONTENTS:

⇒ **Network processed by WUT LAC**

⇒ **Processing strategy**

⇒ **Periodical campaigns**

⇒ **Other researches**

The basic responsibilities of our Centre include:

- processing selected part of permanent EUREF network

- processing periodic campaign (CEGRN, EXTENDED SAGET etc)

- processing local and regional campaigns for geophysical and geodetic needs in the area of Poland

Not included in map:
KELY
PDEL
THU1

◇ Warsaw University of Technology (WUT)

9/04/2001

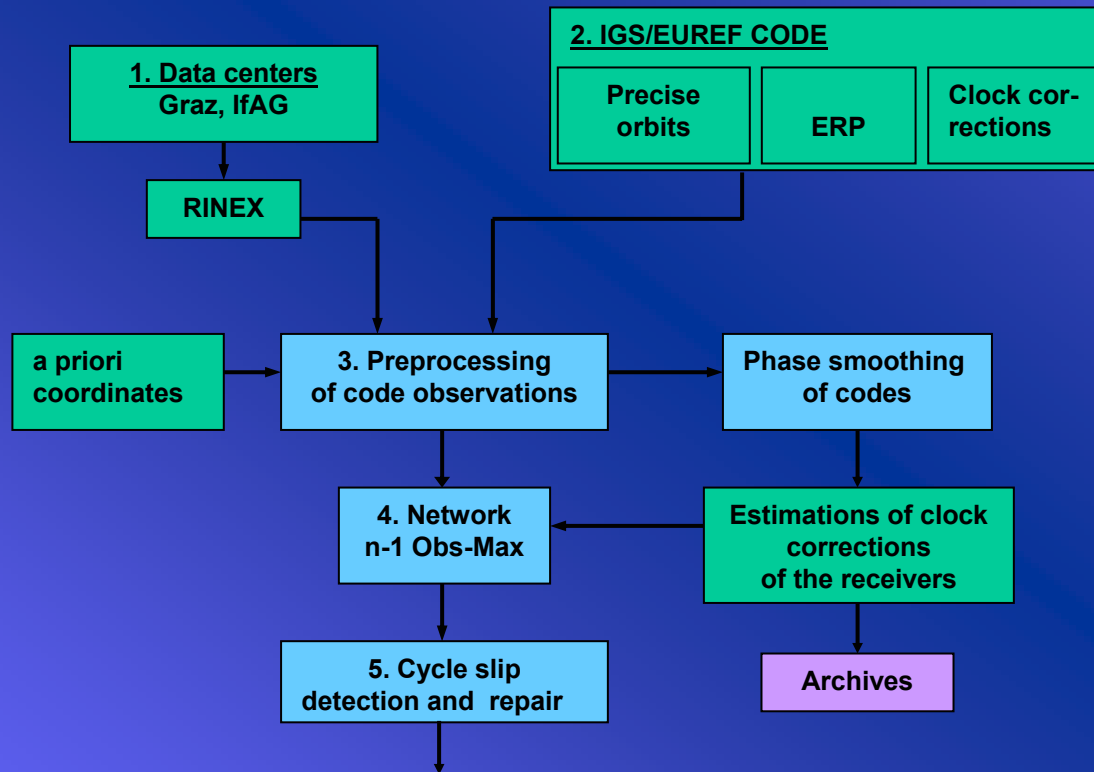**Stations currently processed by WUT LAC (31 stations)**
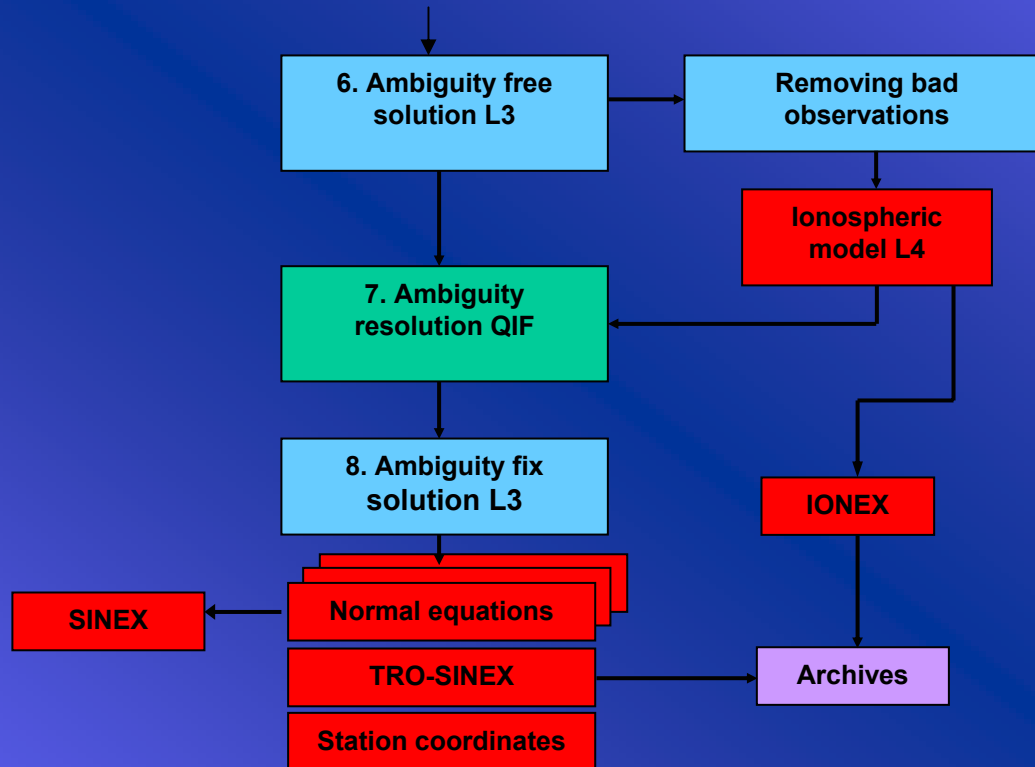
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Short description of strategy:

- software: Bernese 4.2

- orbits, ERP from CODE

- BOR1 constrained (X,Y -0.1 mm, Z-1 mm)

- no a priori tropospheric model, Dry-Niell as
  mapping function

- troposphere modelled each 2 hours/each station
  (absolute and relative constraints 5 m)

- ionosphere only modelled for ambiguity
  resolution step

- tidal displacement: IERS96 convention, ocean loading applied

- geopotential model: JGM3

- DE200 planetary ephemeris applied

- adjustment: weighted least squares

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Scheme of processing strategy

2. IGS/EUREF CODE

Precise orbits	ERP	Clock corrections

1. Data centers
Graz, IfAG

RINEX

a priori coordinates

3. Preprocessing of code observations

Phase smoothing of codes

4. Network n-1 Obs-Max

Estimations of clock corrections of the receivers

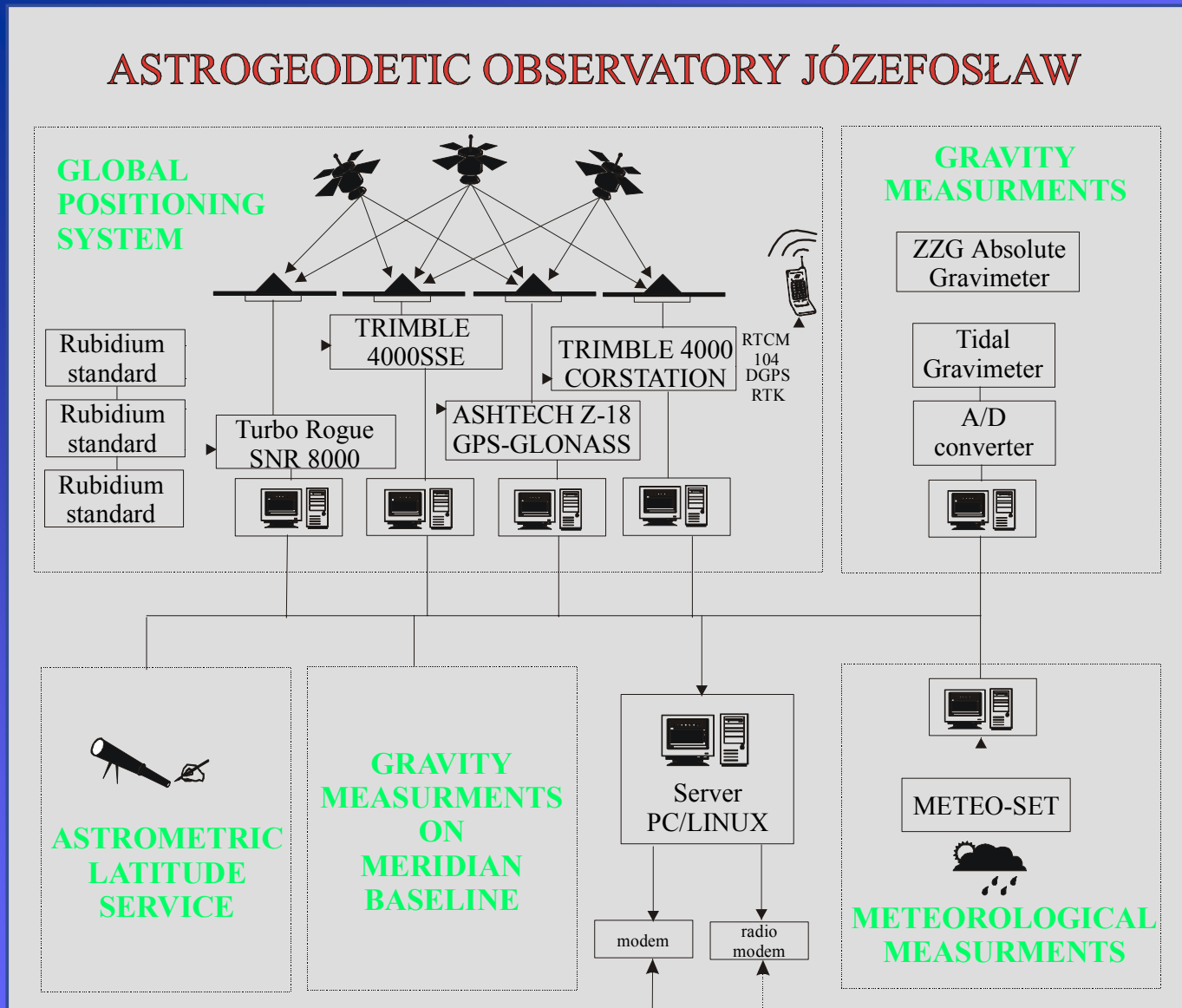**5. Cycle slip detection and repair**

Archives
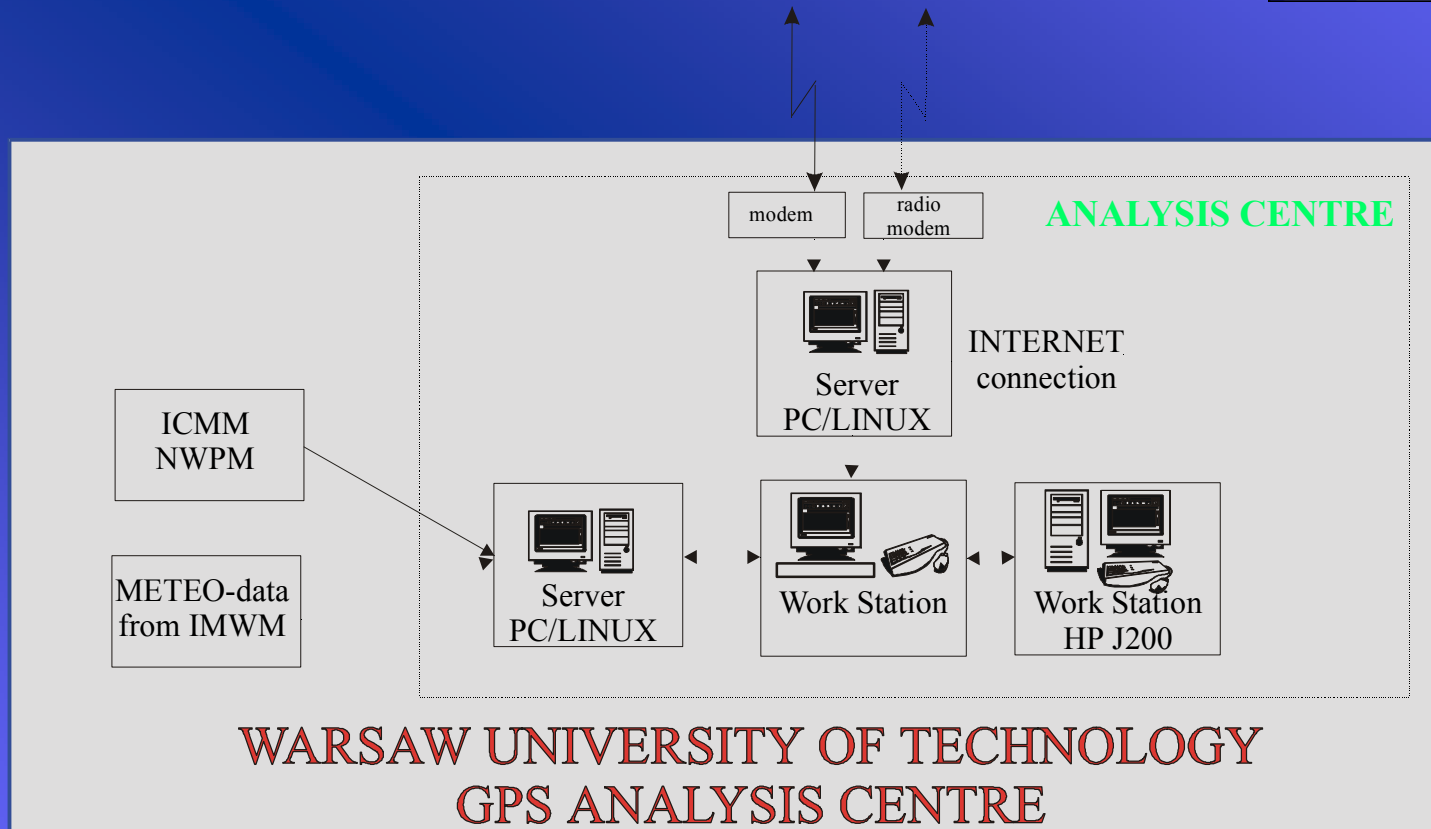
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**Periodical campaigns processed
by WUT LAC:**

**- Central European GPS Regional Network
CEGRN (CERGOP `94, `95 , `96, `97,
CERGOP2 `99)
- EXTENDED SAGET `92-`99**

Map of stations included in CEGRN`99 campaign (57 stations)

Data acquisition system at the Jozefoslaw observatory

ASTROGEODETIC OBSERVATORY JÓZEFOSŁAW

GLOBAL POSITIONING SYSTEM

GRAVITY MEASURMENTS

ZZG Absolute Gravimeter

Tidal Gravimeter

A/D converter

Rubidium standard

Rubidium standard

Rubidium standard

TRIMBLE 4000SSE

TRIMBLE 4000 CORSTATION

RTCM 104 DGPS RTK

Turbo Rogue SNR 8000

ASHTECH Z-18 GPS-GLONASS

ASTROMETRIC LATITUDE SERVICE

GRAVITY MEASURMENTS ON MERIDIAN BASELINE

Server PC/LINUX

METEO-SET

METEOROLOGICAL MEASURMENTS

modem

radio modem

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ANALYSIS CENTRE

| modem | radio modem |

Server
PC/LINUX

INTERNET
connection

ICMM
NWPM

METEO-data
from IMWM

Server
PC/LINUX

Work Station

Work Station
HP J200

WARSAW UNIVERSITY OF TECHNOLOGY
GPS ANALYSIS CENTRE

Current jobs:

- determination of Integrated Water
  Vapour in the atmosphere from GPS observations
- processing for Near-Real Time purposes
  (under development)
- analysis of deformation models

Site Deformation Studies

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