Modernization of the Philippine Geodetic Reference System (PGRS)

Status Report as of 2017
Modernization of PGRS

• Components:

- Densification of PageNET Deformation Modelling
- Alignment to ITRF and Migration to Geocentric Datum (PGD2016)
- Development of the Philippine Geodetic Vertical Datum 2020 (PGVD2020)
- Strengthening of core competencies, R&D and IEC

- Establish 200 AGS
- Develop Deformation Model
- Compute ITRF Coordinates of Philippine Active Geodetic Network (PageNET)
- Re-Observe Zero, 1st & 2nd Order GCPs
- Densify Gravity Stations
- Re-compute Philippine Geoid Model 2014 (PGM2014)
- Train NAMRIA Staff
- IEC Campaigns
- Amendment of existing laws
- R&D on Modernization
Modernization of PGRS
Densification of PageNET-Status

38 Stations Established
Plan to establish 25 sta/year

- 3 IGS Site (PTAG, PPPC, PGEN)

Proposed AGS by 2025 = 200 Stations
Modernization of PGRS - Status

- **Alignment to ITRF**

  - Re-Observe GCPs
    - 995 out of 3000pts

**Deformation Modelling**

- 3-day Dynamic Datum Course with Newcastle University

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[Map of Southeast Asia with marked points indicating GCPs]
Modernization of PGRS - Status

Densify gravity stations
- 2940 out of 41,000pts

Capacity Building
- Seeking for sponsors and training centers on deformation modelling

IEC Campaigns
- Finished the first leg in Manila for the national agencies

R & D on modernization
- Implications of datum change to land titling
- Transformation strategy from existing to new datum

Re-compute the Philippine geoid
<table>
<thead>
<tr>
<th>Year</th>
<th>Activities</th>
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</thead>
<tbody>
<tr>
<td>2016</td>
<td>Re-observation of geodetic control points</td>
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<td>2017</td>
<td>Computation of ITRF solution for PageNET in Philippine Geocentric Datum 2016 (PGD2016)</td>
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<td>2018-2019</td>
<td>Network Adjustment and development of transformation parameters</td>
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<td>Development, validation and refinement of deformation model</td>
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<td>2020 onwards</td>
<td>Densification of the Philippine Active Geodetic Network</td>
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<td>Amendment of enabling law</td>
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<td>Revision of surveying and related regulations</td>
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<td>Research &amp; Development on Modernization of PGRS</td>
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<td>Capacity building and IEC campaigns</td>
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<td>Preparation and publication of technical manuals and guidelines</td>
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