

Data Rescue in Greece: A Synergy between HNMS and Academia



Athanasios D. Sarantopoulos, Ph.D.

Nikos Karatarakis, M.Sc.

Hellenic National Meteorological Service

Outline



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Introduction



- ❧ Data rescue started in November 2007. HNMS participates in all MEDARE workshops.
- ❧ European Union funds, distributed through NSRF, are used to modernize HNMS observation network.
- ❧ New Curriculum Practical Training Programs are implemented. University students perform digitization of sun duration data.
- ❧ European Union Floods Directive put into effect enforces digitization of precipitation data.
- ❧ Employment of interns reorganizes work flow and yields great results for HNMS and Academia.

National Strategic Reference Framework



- ❧ The NSRF 2007-2013:
 - constitutes the reference document for the programming of European Union Funds at national level
 - was elaborated within the framework of the new strategic approach to the Cohesion Policy of the European Union.
- ❧ During the elaboration of the 2007-2013 NSRF as a programming document,
 - a significant number of proposals submitted to the Ministry of Economy and Finance,
 - guidelines – political choices at a national and European level and
 - quantitative data and studieswere used as input.

Curricular Practical Training Program



- ❧ Funded by European Union through NSRF
- ❧ Limited to Greek Universities – may be mandatory
- ❧ Intended for graduating seniors
- ❧ Duration is 2 to 4 months – may be extended
- ❧ High demand for it – students willing to work overtime!
- ❧ 34 students participated during past 18 months from University of Athens, University of the Aegean, National Technical University of Athens, and University of Crete etc.

CPT-related work



- High priority was given to digitizing sun duration data due to an increase in photovoltaic projects in Greece.
- University of Athens doctoral student digitized monthly sun duration data.
- Currently, university interns are digitizing hourly sun duration data.
- Various research projects were completed, results of which were presented at related conferences.

Sun Duration Data Rescued*



Meteorological Stations

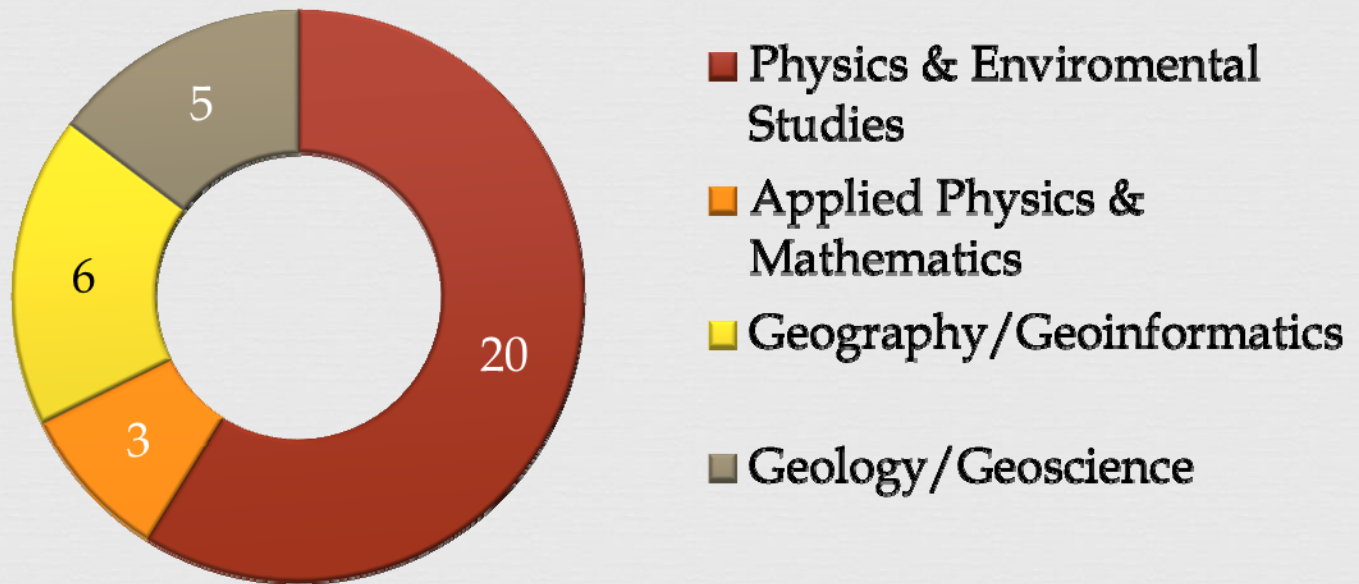
Chios (1974-76)	Larissa (1960-76)
Ioannina (1964-76)	Methoni (1961-76)
Kythyra (1971-76)	Serres (1972-76)
Rhodes (1964-76)	Argostoli (1972-76)
Hellinikon (1962-76)	Pyrgos (1972-76)
Kalamata (1972-76)	Mytilini (1960-76)
Limnos (1974-76)	Ierapetra (1968-76)
Kerkira (1962-76)	Tympaki (1971-76)
Iraklio (1968-76)	Siteia (1961-76)
Naxos (1961-76)	Skyros (1967-76)
Andravida (1975-76)	

*Monthly data

CPT Statistics (18-month period)



Number of Interns



Directive 2007 / 60 / EC



☞ Directive 2007/60/EC:

- is known as the Floods Directive
- requires that Member States assess if all water courses and coast lines are at risk from flooding
- aims to map the potential flooded areas and endangered assets and humans in order to take adequate and coordinated measures to reduce the risk
- reinforces the right of the public to access information and to participate in the planning process.

Floods Directive – Work in process



- ❧ In effect since 26 November 2007.
- ❧ Ministry of Environment, Energy & Climate Change-Special Secretariat for Water is responsible for the implementation of the Water Framework Directive in Greece.
- ❧ Project involves photographing and digitizing precipitation data in paper form and from pluviographs.
- ❧ Plan is to develop:
 - ❧ flood hazard maps
 - ❧ flood risk maps
 - ❧ flood risk management plansand perform intensity-duration-frequency estimation.

Precipitation Data Rescued*



- Agrinio
- Nea Agchialos
- Alexandroupolis
- Andravida
- Araxos
- Argostoli
- Hellinikon
- Herakleion
- Ioannina
- Kastoria
- Kerkira
- Kozani
- Kythira
- Lamia
- Larissa
- Leonidio
- Thessaloniki
- Mytilini
- Pyrgos
- Skyros
- Tatoi
- Tripolis
- Chios
- Chrysoupolis
- Florina

* As of September 2012

Additional Projects



- ❧ Paper records put in plastic containers in new storage room.
- ❧ A Metadata Database was created.
- ❧ Installed new climatological database (Oracle).
- ❧ Rescuing of temperature data has started.
- ❧ Performed comparisons of temperature data from AWS and CWS. AWS perform well after an initial tuning period.

Conclusions



- ❧ Curriculum practical training program implemented with NSRF funds is very successful.
- ❧ CPT benefits HNMS, students, and universities. It has opened doors for common research projects.
- ❧ Students gain valuable experience while HNMS gets much needed help during a period of budget cuts and diminishing human resources.
- ❧ The EU Floods Directive triggered the digitization of precipitation data.
- ❧ A steady inflow of students is a strong contributing factor to the success of Data Rescue projects.

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Contact:



Athanasios D. Sarantopoulos, Ph.D.

Hellenic National Meteorological Service
Division of Climatology-Applications
Eleftheriou Venizelou 14
GR16777 Hellinikon, Greece
Cell: +30 698 3510414
Fax: +30 210 9628952
asaranto@hnms.gr