



Data Rescue in Greece

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Introduction

- ▶ November 2007: Participated in Tarragona Meeting
- ▶ Priorities:
 - ▶ Physical preservation of archives
 - ▶ Creation of Metadata database
- ▶ May 2010: Participated in Nicosia Workshop



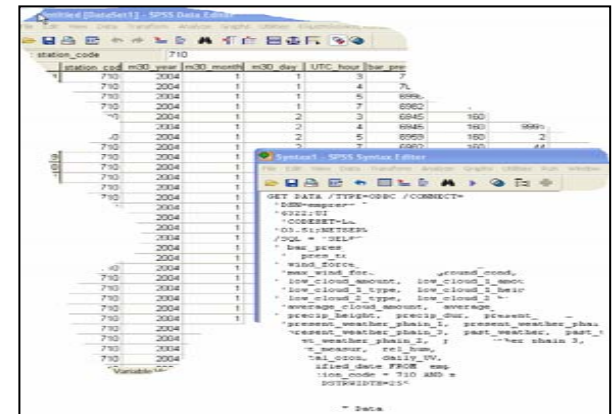
Resources for Data Rescue

- ▶ Improvement of data storage facilities
- ▶ New room has been designated to house archives
 - ▶ Old paperdata is placed in plastic air-tight boxes (5)
- ▶ Equipment used
 - ▶ Purchasing of
 - ▶ Canon Camera (10.1 Mpixels)
 - ▶ Camera stand with 2 lights
 - ▶ 1TB external hard disk
 - ▶ Use of
 - ▶ A3 scanner
 - ▶ 3 PCs
 - ▶ USB sticks



New Climatological Database

- ▶ New climatological database put to operation (2010)
 - ▶ Web-based
 - ▶ Based on .Net technology
 - ▶ Powered by SQL Server
 - ▶ Climatological data is precomputed
 - ▶ Features Human quality control
 - ▶ Data sent directly from Met Stations
 - ▶ Accessed through HNMS local intranet
- ▶ Incorporation of AWS to existing network
- ▶ Data for 141 Synoptic and Climatological Stations (1951-2004)
- ▶ A Metadata database for 152 MS has been created (MS ACCESS)



Human Resources for DARE

- ▶ Severe shortage of personnel
- ▶ 1-2 HNMS employees work on and off on DARE project
- ▶ Senior university students employed during Summer months (2 months each)
- ▶ Soldiers doing clerical tasks during their duty at HNMS



Cooperation with Universities

▶ Participating universities

- ▶ National Technical University of Athens (2 students)
- ▶ University of Athens (2 students)
- ▶ Harokopeion University (2 students)
- ▶ University of the Aegean (1 student)



▶ Graduating Seniors

- ▶ Performing direct data entry of monthly data in Excel sheets
- ▶ Photographing paper data
- ▶ Doing human quality control of precipitation data
- ▶ Doing case studies for university credit
- ▶ Come to work late

Accomplishments

- ▶ Processed data for
 - ▶ 4 Cretan Met Stations
 - ▶ Anogeia, Siteia, Heraklion, Gortys
 - ▶ 1931-1960
- ▶ Performed Case Study for MS of Patras and Agrinio
- ▶ 2000 Size A4 pages with monthly data have been photographed and saved by parameter
- ▶ Homogenization of data has been done for 5 MS (Mytilini, Chios, Kos, Rodos, Samos) from Eastern Aegean using two methods (1955-2003)
 - ▶ Waiting to get Temperature records for the island of Kefallonia from April-August 1829



Attika MS Tmin Records (January)

station	year	month	m30_day	abs_min_temp
Holargos	1964	1	19	-7,0
Tatoi	1964	1	19	-6,0
Spata	1990	1	10	-6,0
Nea Philadelfeia	1964	1	19	-5,8
Spata	2000	1	28	-5,2

Holargos, Athens

new record low for January for urban MS

Tmin=-7C (on19/1/1964)



Oldest paperdata for Greece

Code	Name	Latitude	Longitude	Altitude	Range
16714	ATHENS OBSERVATORY	37,96	23,71	107	1876-1990
16645	TRIKALA THESSALIAS	39,51	21,76	110,2	1892-1972
16661	VOLOS	39,36	22,95	2,6	1894-1948
16732	NAXOS	37,1	25,36	9,8	1894-1954
16648	LARISSA	39,65	22,45	73,6	1894-1954
16726	KALAMATA	37,06	22,01	11,1	1894-1955
16641	CORFU	39,61	19,91	4	1894-1956
16686	MESOLOGI	38,36	21,41	1	1894-1959
16675	LAMIA	38,86	22,43	17,4	1894-1969
16689	PATRAS	38,08	21,73	1	1894-1972

Summary and Future Work

- ▶ DARE is a slow but ongoing process
- ▶ Only monthly data has been rescued
- ▶ Metadata database has been designed
- ▶ University cooperation encouraged
 - ▶ Student availability is typically during summer months
 - ▶ Participating graduating seniors must complete DARE assignment in order to graduate
- ▶ Priority to be given to process MS with longest records
- ▶ Will try to collect data from countries which occupied parts of Greece as well as other sources
- ▶ Will seek help from National Archives
- ▶ HNMS obtained **ISO 9001:2008** certification for provision of aviation meteorology products

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