

# Supplementary Materials: Storm Naming in the Eastern Mediterranean: Procedures, Events Review and Impact on the Citizens Risk Perception and Readiness

Vassiliki Kotroni \*, Konstantinos Lagouvardos, Antonis Bezes, Stavros Dafis, Elisavet Galanaki, Christos Giannaros, Theodore Giannaros, Athanasios Karagiannidis, Ioannis Koletsis, Theodora Kopania, Katerina Papagiannaki, George Papavasileiou, Vasilis Vafeiadis and Eustratios Vougioulas

## Supplement S1: Short description of named events

Name	Start Date	End Date	Short Description
ARIADNI	05/01/2017	11/01/2017	A very intense cold intrusion that gradually evolved to a cold core low-pressure system in the middle/upper troposphere over the Balkans produced heavy snowfall and significant snow accumulation, even in coastal areas. Very low temperatures across the country.
VIKTOR	16/01/2017	17/01/2017	A low-pressure system in Southern Italy caused continuous rainfall and snowfall in a large part of the country. Road traffic was significantly disrupted.
GALATEIA	07/03/2017	12/03/2017	A low-pressure system, moving from the Ionian to the Southeastern Aegean, produced high rainfall amounts (snowfall at higher elevation areas) in many parts of the country.
DAIDALOS	23/10/2017	26/10/2017	A low-pressure system over the country produced heavy rainfall and thunderstorms, causing significant damages, mainly in Western Crete on 26/10.
EURIDICE	13/11/2017	17/11/2017	A low-pressure system produced heavy rainfall and thunderstorms, resulting in catastrophic floods in Mandra, Attica (24 victims), as well as in the Aegean island of Symi island and the prefecture of Pieria in Northern Greece.
ZINON	18/11/2017	19/11/2017	A Mediterranean cyclone with tropical characteristics (medicane) affected the Ionian and Western Greece producing heavy precipitation and gale force winds that resulted in infrastructure damage and small-scale floods in Achaia prefecture of Southwestern Greece.
ILEKTRA	28/12/2017	29/12/2017	A low-pressure system produced high rainfall amounts in Epirus on 28/12 and in Western Crete on 29/12.
THISEAS	12/01/2018	13/01/2018	A low-pressure system produced high rainfall amounts in Magnesia prefecture in Central Greece causing significant infrastructure damage in the area.
IOKASTI	10/02/2018	11/02/2018	A deep low-pressure system that was characterized as a meteorological "bomb", produced significant rainfall amounts and gale force winds that resulted in floods and landslides. Three people lost their lives on mountain trails while several others were saved by rescue teams.

KREONTAS	15/02/2018	16/02/2018	A low-pressure system produced heavy rainfall amounts in most parts of the country, causing small-scale damage and transportation disruptions.
LITO	25/02/2018	27/02/2018	A deep low-pressure system produced extreme rainfall, heavy snowfall at regions of high altitude and strong winds, resulting to overflow of rivers and infrastructure damage.. Many residential areas remained isolated for 2 days.
MINOAS	15/06/2018	19/06/2018	A mid-troposphere disturbance affected the whole country with heavy rain, hail, locally strong winds and whirlwinds. Twenty tornadoes and waterspouts, as well as significant damage to crops and rural roads were reported. Tens of thousands of lightning caused damages and power outages.
NEFELI	24/06/2018	29/06/2018	A low-pressure system, produced thunderstorms in several parts of the country, leading to floods and extensive damage. Near gale winds over the Aegean Sea and 32 tornadoes and waterspouts were observed. The maximum temperature in some areas of Northern and Central Greece was the lowest for June for at least the last 10 years.
XENOFON	25/09/2018	01/10/2018	A cut-off low-pressure system that evolved to a medicane produced gale-force winds, extreme rainfall amounts, high waves in coastal areas and a drop in temperature more than 15 °C in just 24 hours. Extensive damages were reported in many parts of the country. Four people were drowned in Central Greece.
ORESTIS	22/10/2018	24/10/2018	A low-pressure system produced significant rainfall amounts in the central and southern parts of the country and thunderstorms mainly over the sea.
PINELOPI	25/11/2018	30/11/2018	Two consecutive low-pressure systems produced heavy rainfall and thunderstorms, gale-force winds and during the last days of the event significant temperature drop and snowfall, mainly at regions of high elevation. Floods and landslides were reported.
RAFAIL	31/12/2018	01/01/2019	A deep low-pressure system produced heavy snowfall in the mountainous and semi-mountainous areas, as well as heavy rainfall and gale force winds. A woman lost her life due to frost and a lot of villages were isolated by snowfall. Floods, landslides and power outages were also reported
SOFIA	03/01/2019	05/01/2019	A cold intrusion accompanying a low-pressure system produced heavy snowfall, even in lowland areas of the mainland and very low temperatures. The event resulted to the 3rd largest snow coverage in Greece since 2004. Villages in mountainous areas were snowbound and long power outages were reported. Three people lost their lives during a torrent overflow.
TILEMACHOS	07/01/2019	08/01/2019	A cold intrusion accompanying a low-pressure system produced heavy snowfall in many areas, including Aegean Sea islands. Very low temperatures were also recorded. Transportation was disrupted in many prefectures.

YPATIA	09/01/2019	10/01/2019	A cold front swept the country causing heavy snowfall and rainfall in many parts of the country. Gale-force winds and high waves over seas caused disturbances in maritime transport.
FOIVOS	22/01/2019	26/01/2019	Successive low-pressure systems produced heavy rainfall, hail thunderstorms, snowfall in high elevation areas and gale force winds. Floods and landslides were reported causing infrastructure damage and traffic disruptions. Maritime transportation were disrupted due to the gale-force winds. Three waterspouts were reported.
HIONI	12/02/2019	17/02/2019	A cold intrusion and the subsequent formation of low-pressure systems in the Mediterranean produced heavy rainfall, snowfall and gale-force winds. Traffic disruption occurred due to the locally high snow accumulation. Four people lost their lives in a torrent overflow.
OKEANIS	23/02/2019	25/02/2019	The combination of high pressures in Central Europe with low-pressures over Greece during an intense cold intrusion produced heavy rainfall and snowfall that in some regions led to high snow accumulation. Strong gale-force winds occurred in maritime areas disrupting sea transportation for up to 3 days. During the period 24-25/02, the European record of monthly precipitation level was broken in Western Crete, where flood and landslides resulted in extensive infrastructure damage. A man was swept away by a torrent and lost his life.
ANTINOOS	14/07/2019	17/07/2019	A low-pressure produced extreme rainfall, heavy thunderstorms and out-of-season low temperatures. Floods and power outages were reported.
VIKTORIA	12/11/2019	14/11/2019	A deep low-pressure system produced heavy rainfall amounts and gale-force winds. Floods and landslides resulting in infrastructure damage were reported.
GIRYONIS	24/11/2019	26/11/2019	A deep low-pressure system produced heavy rainfall amounts and gale-force winds resulting to floods in many areas. Four fatalities were reported. Maritime traffic was significantly disrupted.
DIDO	10/12/2019	12/12/2019	A low-pressure system produced heavy and prolonged rainfall and also thunderstorms, hailstorms and 5 waterspouts. Flooding and landslides were reported causing significant infrastructure damage.
ETEOKLIS	13/12/2019	14/12/2019	A deep low-pressure system produced heavy rainfall and gale-force winds. Marine transportation was disrupted.
ZINOVIA	29/12/2019	31/12/2019	Cold air masses of arctic origin advected by a long-wave trough affected the country, producing heavy snowfall at low altitudes with harsh cold in the mountains, strong storms and gale-force winds. Road, sea and air traffic was disrupted and power outages continued for several days.
IFAISTION	05/01/2020	07/01/2020	A long-wave trough and a subsequent deep low-pressure system advected cold air masses from Northeastern Europe. Gale-force winds in the Aegean, snowfall, even at low altitudes and very high precipitation totals were recorded. Infrastructure damage and was reported and villages were isolated due to high snow depth.

THALEIA	05/08/2020	09/08/2020	A semi-stationary cut-off low-pressure system produced high rainfall amounts and intense thunderstorms in several parts of the country. A state of emergency was declared in some municipalities, after floods that resulted in 8 fatalities.
IANOS	16/09/2020	20/09/2020	A low-pressure system with tropical characteristics (medicane) affected many areas with gale-force winds, high waves, heavy rainfall amounts and thunderstorms.. Floods, landslides and infrastructure damage were reported, leading to the death of 4 people.
KIRKI	28/10/2020	29/10/2020	A deep low-pressure system produced heavy rainfall amounts in most parts of the country and gale-force winds over sea. Infrastructure damage was reported.
LEANDROS	14/01/2021	18/01/2021	A cold intrusion related to an upper level atmospheric disturbance over the Balkans produced harsh cold and heavy snowfall even in coastal and insular areas. 1/3 of the country's land area being covered with snow on Sunday 17/01. Road traffic was disrupted.
MEDEA	13/02/2021	17/02/2021	A long-wave trough and the associated very intense cold intrusion and a low-pressure system produced heavy snowfall and high snow accumulation in many parts of the country. Gale-force winds were recorded over the Aegean Sea. Road and ship traffic was significantly disrupted. Crop damage and power outages that lasted for days were reported. A state of emergency was declared in many municipalities. A record breaking minimum temperature of -25.1 ° in a mountainous village.

### Supplement S2: Statistical significance of examined variables in the survey

Table S2.1 shows the statistically significant correlations between all the examined variables, indicating that socio-demographic attributes such as gender, age, and the level of urbanization in the areas where people live, are not associated with the levels of readiness, risk perception, acceptance of the storm naming or access to information.

**Table S2.1.** Correlations (Spearman's rank coefficient (rho)) between all the examined variables.

Spearman's rank (rho)	readiness	risk perception	acceptance	access to information	negative experience	gender	age	urban fabric
readiness	1							
risk perception	0.79	1						
acceptance	0.68	0.61	1					
access to information	0.78	0.69	0.70	1				
negative experience	0.22	0.21	0.15	0.15	1			
gender					0.05	1		
age					-0.05		1	

---

urban fabric	−0.12	1
--------------	-------	---

---

Note: Only statistically significant results are provided ( $p < 0.05$ ). Gender is coded as 1 for females and 2 for males. Age is an ordinal variable, coded as 1–6 for age categories <18, 18–30, 30–45, 45–60, 60–75, >75, respectively. The coding of the rest of the variables is shown in Table S2.1.