

Supplementary information to:

Meteotsunamis in the Western Mediterranean: A regional analysis from high-frequency sea level observations.

Joan Villalonga*(1), Josep Pascual(2), Joan Puigdefàbregas(1,3), Damià Gomis(1,4), Gabriel Jordà(5)

(1) Departament de Física (UIB), Palma, Spain.

(2) MeteoEstartit

(3) Laboratori d'Enginyeria Marítima - Universitat Politècnica de Catalunya (LIM-UPC)

(4) IMEDEA (UIB-CSIC), Esporles (Mallorca), Spain

(5) Centre Oceanogràfic de Balears, CN-Instituto Español de Oceanografía (IEO-CSIC), Palma, Spain.

Email: joan.villalonga@uib.cat, gabriel.jorda@ieo.csic.es

SI1: Press news on meteotsunamis in the western mediterranean, in locations that are not Ciutadella

1. List of meteotsunamis events

The following list contains all the found meteotsunamis events reported in the digital media in the Valencian Country, Catalonia and the Balearics Islands. We only have excluded from this list that events which were only reported in Ciutadella. The later were the majority of news mentioning meteotsunamis or “Rissagues” in the region of study but they were not considered since it is already widely known that meteotsunamis of extreme amplitude occur in that harbor.

1			
1999/08/09	Port de Sóller (Mallorca)	>1 m	Tide gauge data: no
3 restaurants were flooded			Damage to people: no
- https://www.elsoller.cat/local/1999/08/16/275764/una-rissaga-inesperada-envai-la-platja.html - https://www.ultimahora.es/noticias/part-forana/1999/08/11/951325/rissaga-afecto-port-soller-tambien-noto-eivissa-menorca.html - https://www.ultimahora.es/noticias/part-forana/1999/08/10/951527/rissaga-inunda-comedores-tres-restaurantes-del-port.html			

2			
2005/08/10	Dènia, Xàvia, Gandia (Valencian Country), Sant Antoni and Santa Eulalia (Eivissa)	~1.30 m	Tide gauge data: no
Flooding of the sewer and bad smell in Eivissa.			Damage to people: no
- https://elpais.com/diario/2005/08/12/cvalenciana/1123874279_850215.html - https://www.diariodeibiza.es/ibiza/2005/08/13/nivel-mar-oscilo-pasado-miercoles-31337022.html - https://www.levante-emv.com/comunitat-valenciana/2005/08/12/expertos-discrepan-origen-brusca-subida-13851776.html			

3			
2007/10/04	Port d'Alcúdia (Mallorca)	~1 m	Tide gauge data: no
Flooding of several restaurants, damaging electric			Damage to people: no

appliances.			
-		https://www.diariodemallorca.es/sucesos/2007/10/05/tempestad-vino-precidida-rissagas-causaron-4345223.html	
4			
2008/05/25	Port de Sóller (Mallorca)	>1 m	Tide gauge data: no
A pontoon was detached, and boat suffered from small damages			Damage to people: no
-		https://www.ultimahora.es/sucesos/ultimas/2008/05/27/433097/segunda-rissaga-mas-metro-afecto-ayer-port-soller.html	
-		https://www.diariodemallorca.es/sucesos/2008/05/26/rissaga-metros-desplaza-pantalan-8-4288852.html	

5			
2011/07/21	Porto Cristo (Mallorca)	~1 m	Tide gauge data: no
Flooding of a small bridge and traffic interruption			Damage to people: no
-		https://www.ultimahora.es/noticias/part-forana/2011/07/22/46410/portocristo-sufre-una-rissaga-en-la-zona-del-pont-del-riuet.html	
-		https://www.diariodemallorca.es/part-forana/2011/07/23/rissaga-inunda-viejo-pequeno-puente-4038407.html	

6			
2015/08/01	Portocolom, Port de Pollença and Port d'Alcúdia (Mallorca)	~1 m	Tide gauge data: yes (Alcúdia and Pollença)
Docks overwhelmed by sea level.			Damage to people: no
-		https://www.mallorcadiaario.com/noticia/501424/ibiza/rissaga-de-mas-de-un-metro-en-portocolom.html	
-		https://www.diariodemallorca.es/mallorca/2015/08/02/inundaciones-rissagues-port-pollenca-ciudadella-3720535.html	

7			
2017/07/21	El Campello (Valencian country)	Unknown	Tide gauge data: no
No damages			Damage to people: no
-		https://www.extremadura7dias.com/noticia/un-meteotsunami-afecto-a-las-costas-de-alicante-este-domingo-que-son	

8			
2018/07/15	Most harbours in Mallorca, Formentera and Menorca	~ 1.5 m (larges changes depending on the location)	Tide gauge data: yes
- Andratx (Mallorca): 1 boat broke loose from its moorings - Port d'Alcúdia (Mallorca): fooding of dock and roads - Colònia de Sant Jordi (Mallorca): a boat has run aground on the sand on the beach.			Damage to people: 1 casualty in Santanyí
-		https://www.mallorcaconfidencial.com/articulo/medio-ambiente/las-rissagas-sorprenden-barcos-ras-calle-porto-cristo/20180716191520102438.html	
-		https://www.ultimahora.es/noticias/part-forana/2018/07/16/1013591/fuerte-rissaga-deja-balear-deriva-andratx.html	
-		https://www.ultimahora.es/sucesos/ultimas/2018/07/16/1013631/espectaculares-imagenes-rissaga-alcudia.html	
-		https://www.ccma.cat/el-temps/rissagues-a-les-illes-balears/noticia/2867136/	
-		https://www.diariodemallorca.es/videos/part-forana/2018/07/16/rissaga-port-d-alcudia-3018575.html	
-		https://www.diariodemallorca.es/videos/part-forana/2018/07/16/imagenes-rissaga-port-d-alcudia-3018550.html	
-		https://www.diariodemallorca.es/part-forana/2018/07/16/barco-encallado-colonia-sant-jordi-3160466.html	
-		https://www.diariodemallorca.es/mallorca/2018/07/17/mar-oscilo-metro-porto-cristo-3156377.html	
-		https://www.lavanguardia.com/natural/20180718/45953680517/baleares-rissaga-remolino-olas.html	
-		https://ib3.org/rissaga-de-mes-dun-metre-a-ciudadella	

9			
2019/06/21	Port de Sóller (Mallorca)	>1.5 m	Tide gauge data: no
Flooding of the docks.			Damage to people: no
- https://www.ultimahora.es/noticias/local/2019/06/21/1089385/historica-rissaga-mas-metro-soller.html - https://www.ultimahora.es/noticias/part-forana/2019/06/21/1089415/time-lapse-rissaga-soller-asi-baja-nivel-del-mar.html - https://www.diariodemallorca.es/videos/part-forana/2019/06/21/espectacular-rissaga-port-soller-3032632.html			

10			
2019/07/08	Cala Ratjada (Mallorca) and Sant Antoni (Eivissa)	Unknown	Tide gauge data: no
A sailing boat had an accident with the rocks in the port of Cala Ratjada			Damage to people: an operator was injured in the shoulder while carrying out the rescue work.
- https://www.mallorcaconfidencial.com/articulo/part-forana/rescaten-a-cuatro-tripulantes-de-un-velero-que-se-estrello-en-cala-rajada/20190709194621107690.html - https://www.diariodeibiza.es/ibiza/2019/07/09/rissaga-eleva-medio-metro-nivel-29555969.html			

11			
2020/05/08	Barra del trabucador (Delta de l'Ebre, Catalonia)	Unknown	Tide gauge data: no
32 people working on the sand bar were isolated by the sea level rise and had to be rescued by sea.			Damage to people: no
- https://www.ccma.cat/el-temps/una-trentena-de-persones-aillades-al-trabucador-per-una-pujada-del-nivell-del-mar/noticia/3012617/			

12			
2021/08/11	Santa Pola (Valencian Country)	Unknown	Tide gauge data: no
Flooding of the promenade and several boats adrift			Damage to people: no
- https://www.lavanguardia.com/local/valencia/20210811/7656435/meteotsunami-sorprende-madrugada-santa-pola-afecta-flota-pesquera-paseos-litoral.html - https://www.diariodemallorca.es/medio-ambiente/2021/08/11/tsunami-meteorologico-elevado-mar-alicante-56145097.html - https://www.vilaweb.cat/noticies/rissaga-pujada-sobrada-marea-flota-pesquera-santa-pola/			

13			
2023/07/24	Porto Cristo (Mallorca), Tarragona and L'Estartit (Catalonia)	> 0.5 m (Porto Cristo)	Tide gauge data: yes
Flooding of bar terraces (Porto Cristo) and flooding of the docks (Tarragona).			Damage to people: no
- https://www.ultimahora.es/noticias/part-forana/2023/07/25/1982993/video-sorprendente-rissaga-porto-cristo-mar-inunda-terrazas-del-puerto-1.html - https://www.diarimes.com/ca/tarragona/230725/el-fenomen-rissaga-obre-pas-serrallo_132928.html - https://www.elpuntavui.cat/societat/article/11-mediambient/2316806-registren-una-seixa-una-pujada-sobrada-del-nivell-del-mar-a-l-estartit.html - https://www.diarimes.com/ca/tarragona/230724/el-barri-del-serrallo-inunda-nou_132727.html			

2. Methodology

The news has been recovered by search online using google.com searching engine. The key words to find the news where: *rissaga*, *seixa* or *seiche* and *meteotsunamis*. Some additional search was carried out in the searching engine of local newspapers of the region. Finally, it is worth noticing that no news is find prior to year 1999 since the newspapers are not digitalized for the period before the 21st century.