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*Impacts on Soil and
Coasts Division*

Analysis of a meteorological wind event over Verbania-Cusio-Ossola province

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SUMMARY The present research paper investigates a meteorological event occurred on the 11th May 2014 over Verbania-Cusio-Ossola province, characterized by the presence of strong winds, causing numerous damages and diseases. The aim of the work is to study the exceptionality of such event by comparing daily wind speeds (mean and maximum values) with a long time series (30 years) of winds data. For this reason a definition of extreme events is proposed, followed by a meteorological analysis and a climatological study of wind speeds over the area of interest. Such climatological study has been carried out using outputs of COSMO-CLM model driven by ERA-Interim. In order to roughly evaluate the error carried out, a comparison between the model downscaled results and the available observed data is proposed. In addition a study of the evolution of the weather situation in the area of interest using numerical weather prediction models, at different resolutions, has been realized. Finally the impacts on soil caused by such meteorological event have been described.

Keywords: Extreme winds, Meteorological events, Impacts

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INTRODUCTION

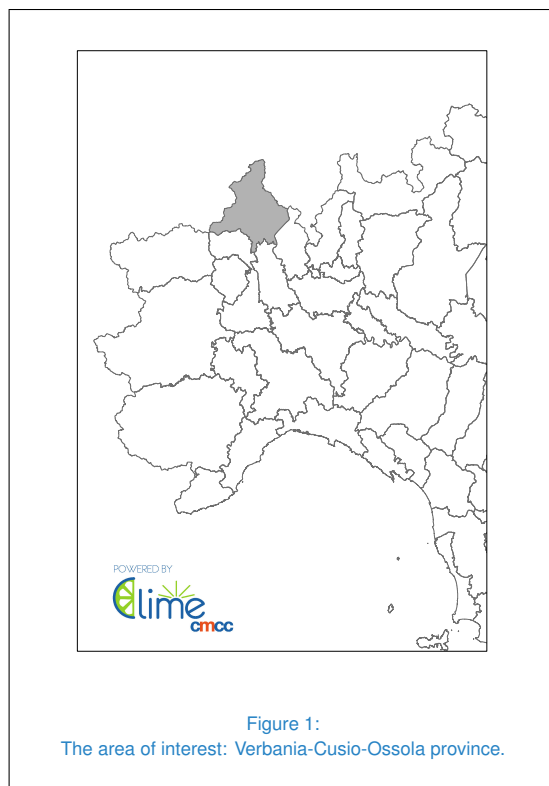
The main activity of the Impacts on Soil and Coasts division (ISC) regards the study of hydrogeological hazards connected with climate change. In such framework it has developed expertises and tools [34, 33] to deal with extremes of observed and simulated climate datasets at different spatial scales, from international (Mediterranean area, [9, 18]), to national (China and Italy [28, 29, 6, 5]), regional (North-Center Italy, Alps, and Sardinia [7, 30, 17, 28, 27]), local (Orvieto [28]). In the last years, CMCC ISC has also collected regional high resolution observed precipitations and temperature data, thanks to the collaboration with various Italian ARPAs (Regional Agencies for Environment and Protection). Furthermore international databases (e.g. Map, EOBS, HISTALP, [12, 13, 3]) are available. All these data are used to obtain a wide reference database to evaluate the outputs of climate simulations performed at ISC division and/or to analyse specific weather events [21]. The aim of the present research paper is to study the rarity of the meteorological event occurred over Verbania-Cusio-Ossola province (reported in grey Figure 1) on the 11 May 2014 and characterized by the presence of strong winds that caused numerous damages and diseases.

DEFINITION OF EXTREME EVENTS FROM A CLIMATE PERSPECTIVE

As reported in [25] "Extreme events are generally easy to recognize but difficult to define [...]"; it is not simple to provide a specific definition of *extreme weather event*.

A general definition can be "an event that is rare within its statistical reference distribution at a particular place", specifying that the characteristics of what is called extreme weather may vary from place to place.

However, the extreme climate events can be



defined as the occurrence of a value of a weather or climate variable above (or below) a threshold value near the upper (or lower) ends ("tails") of the range of observed values of the variable [15]. Unfortunately, this definition is more general so, from an operative point of view, it is not applicable because it does not fix the threshold value.

Many other definitions are available in the literature ([24, 23] [14]); in this paper the following definitions are considered:

- Exceptional: an event with values exceeding the 99th percentile;
- Extreme: an event with values exceeding the 95th percentile;
- Rare: an event with values exceeding the 90th percentile.

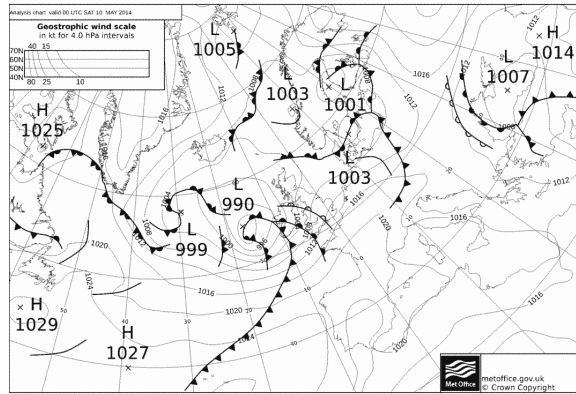


Figure 2:
Bracknell chart valid at 00 UTC of the 10th May 2014. Available at
<http://www.wetterzentrale.de/topkarten/tkfaxbraar.htm>.

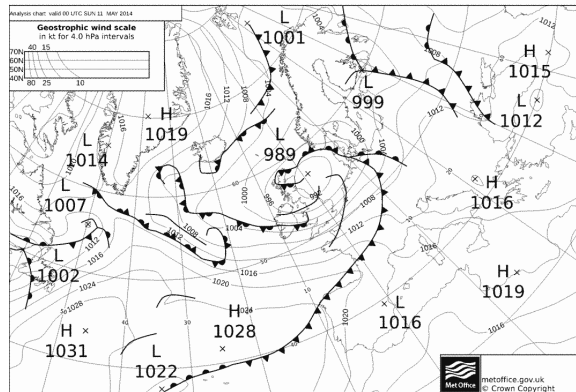


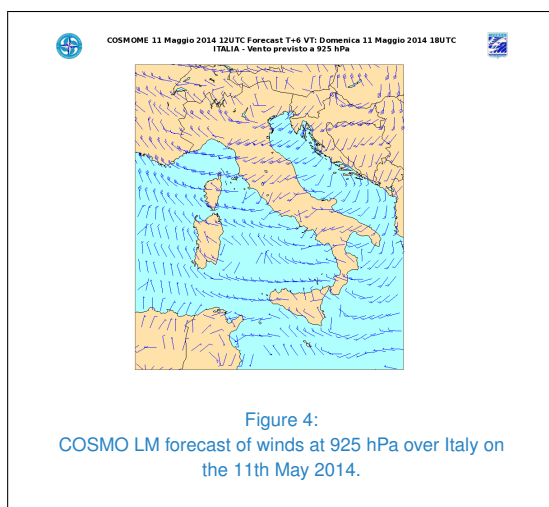
Figure 3:
Bracknell chart valid at 00 UTC of the 11th May 2014. Available at
<http://www.wetterzentrale.de/topkarten/tkfaxbraar.htm>.

In the present work, the exceptionality of the event has been evaluated, comparing the observed data to a 30 years dataset (1981-2010) that is considered the standard reference climate period. The *Standard Reference Period* in climatology is a time interval of 30 years which averages are characterising the present 'normal' climate conditions over a certain area [22].

METEOROLOGICAL ANALYSIS OF THE EVENT

In order to describe the synoptic situation occurred during the day investigated in this paper, a brief synoptic analysis is reported.

On the 10th May 2014 (Figure 2), a cold front coming from the North Atlantic area ap-



proached the Alpine region, reaching it on the 11th (Figure 3) and carrying thunderstorms and strong winds over Northern Italy. In Figure 4 it is shown the COSMO LM forecast of winds over Italy at 18:00 UTC: it can be noticed that the Northern part of Italy has been interested by strong winds. In fact as reported in [1, 20] the cold front crossed the Alps leading to extended Foehn conditions over the entire Piedmont region. *Foehn* is a dry wind descending in the lee of a mountain range producing strong wind gusts, reduction of relative humidity and increase of temperatures [19]. Such conditions caused the presence of wind gusts over the entire region [1, 20]: in the Alps were registered wind gusts up to 150 km/h, in Val di Susa up to 80-85 km/h and in Cuneo and Turin areas they reached speeds of 60-70 km/h. Such phenomena interested also lowland areas of Piedmont region.

Moreover in order to evaluate the evolution of the weather situation in the area of interest an analysis through the use of numerical weather prediction models, at different resolutions, has been realized in the following.

WIND SPEEDS CLIMATOLOGICAL ANALYSIS

In order to understand if the meteorological wind event over Verbania-Cusio-Ossola has been exceptional, extreme, rare or none of them, it is necessary to study the climatological features of wind speeds over such province. Such analysis will be carried out by computing the percentiles of wind speed and comparing them with the observed values. The observed values is defined *exceptional* if it exceeds the 99th percentile, *extreme* if it exceeds the 95th percentile and *rare* if it exceeds the 90th percentile. In particular, will be investigated not only daily mean wind speed values but also daily maximum wind speeds that can better represent the exceptionality of the event. In fact, during thunderstorms can occur wind gusts that can significantly exceed the daily mean values.

The dataset used to perform the climatological analysis is the output of COSMO-CLM model [4] with a spatial resolution of 8 km, forced by ERA-Interim reanalysis (global atmospheric reanalysis produced by the European Centre for Medium range Weather Forecasts) [11] and covering a 30 years period from 1981 to 2010. Reanalysis data are frequently used as surrogates for observational data for validation of large-scale processes. Such data are basically interpolations of observational data based on a dynamical model (so called data assimilation), and are therefore complete and physically consistent, even if they are subjected to model bias [16]. The choice of ERA Interim reanalysis dynamically downscaled using COSMO-CLM model, is due to the lack of the availability of a long period observational dataset for the variable investigated. Anyway, in order to roughly quantify the error committed using COSMO model, a comparison with the available observed dataset is reported in the following section.



Such gridded data have been interpolated over Verbania-Cusio-Ossola province using the Natural Neighbour technique through software *Clime* [8]. In fact, all the analyses presented in this work has been obtained using CLIME, a special purpose GIS software integrated in ESRI ArcGIS Desktop 10.X, and developed by CMCC-ISC Division in the frame of Project GEMINA, in order to better evaluate the impact on soil of climate changes. CLIME has been designed to bridge the usually existing gap between atmospherical data gathered from different sources and impact communities. For more info, see <http://www.cmcc.it/software/clime>.

The dataset of the meteorological event of interest (both mean and maximum daily wind speed values) has been provided by Arpa Piemonte database. The stations investigated in the present work are those located in Verbania-Cusio-Ossola province (Figure 7) and for which wind data are available. Such stations are reported in Table 1.

The daily mean wind speed values have been compared to the 99th, 95th and 90th percentiles of the distribution (reported in Figure 7) in order to investigate the exceptionality of the event. In Table 1 the results of such comparison are reported, showing that the event has been exceptional, extreme or rare for most of the stations investigated (apart from Domodossola and Larecchio ones) because the daily maximum wind speeds exceed, respectively, the 99th, 95th and 90th percentiles. Such results are confirmed by the analysis of Probability Distribution Functions (Figure 5) for all seasons and spring season (indicated as MAM March-April-May), showing that the wind speed values are located near the upper end of the distribution, confirming the rarity of the event. In addition the observed maximum daily wind speed values have been investigated in order to evaluate if the event has been exceptional in terms

of wind gusts occurred. In Table 2 the comparison among the observed maximum values and the 99th, 95th and 90th percentiles of the distribution of wind gusts is reported, showing that the event has been exceptional for all stations apart from Larecchio one for which it has been extreme. In addition the PDFs of maximum daily wind speeds for the entire year and spring season are reported in Figure 6. The results proposed prove that the meteorological event has been exceptional or extreme for most of the area investigated not only in terms of wind gusts but also in terms of daily mean values. This is probably due to the fact that winds have not been temporally localized but occurred for a longer period. In fact, as reported in [20, 1] Piedmont region has been interested for most of the day by Foehn conditions that caused the occurrence of strong winds.

COMPARISON AMONG COSMO-CLM AND OBSERVED DATA

The analyses reported have been carried out on a 30 years dataset (output of COSMO CLM model forced by ERA INTERIM). This choice is due to the lack of a long time period of observed data (at least 30 years) on which perform the climatological analyses. ARPA Piemonte makes available, at its institutional website, a dataset of historical data of Piedmont meteorological stations. Unfortunately wind speeds and wind gusts are not always available and sometimes they are available only for few years. Anyway, in order to investigate the correctness of the analyses carried out on COSMO-CLM outputs, a comparison with the available observed dataset is performed. First of all it is reported, for each station investigated, the period for which data are available (Table 3). It can be noticed that the longest period available is of about 23 years and the listed periods can also contain missing values. Anyway a comparison between

**Table 1**

Observed daily mean wind speed values of 11 May and 99th, 95th and 90th percentiles (in m/s) over Verbania-Cusio-Ossola province for the period 1981-2010. The wind speed values exceptional, extreme and rare are reported in red, orange and green.

Station	11/05	99th	95th	90th
Verbania Pallanza	2.5	3.5	2.7	2.2
Domodossola	1.8	2.9	2.5	2.3
Mottarone	5.1	3.3	2.7	2.2
Formazza	6.7	4	3.3	2.9
Lago Paione	3.5	3.7	3.2	2.9
Larecchio	1.6	2.9	2.5	2.2

Table 2

Observed maximum daily wind speed values of 11 May and 99th, 95th and 90th percentiles of the maximum daily wind speed values (in m/s) over Verbania-Cusio-Ossola province for the period 1981-2010. The wind speed values exceptional and extreme are reported in red and orange.

Station	11/05	99th	95th	90th
Verbania Pallanza	25.6	16.5	13.8	11.7
Domodossola	19.3	15.9	13.4	11.7
Mottarone	23.1	16.9	14.3	12.5
Formazza	22.4	15.4	12	10.5
Lago Paione	24.6	16.3	13.2	12
Larecchio	14.5	15.8	13.3	11.2

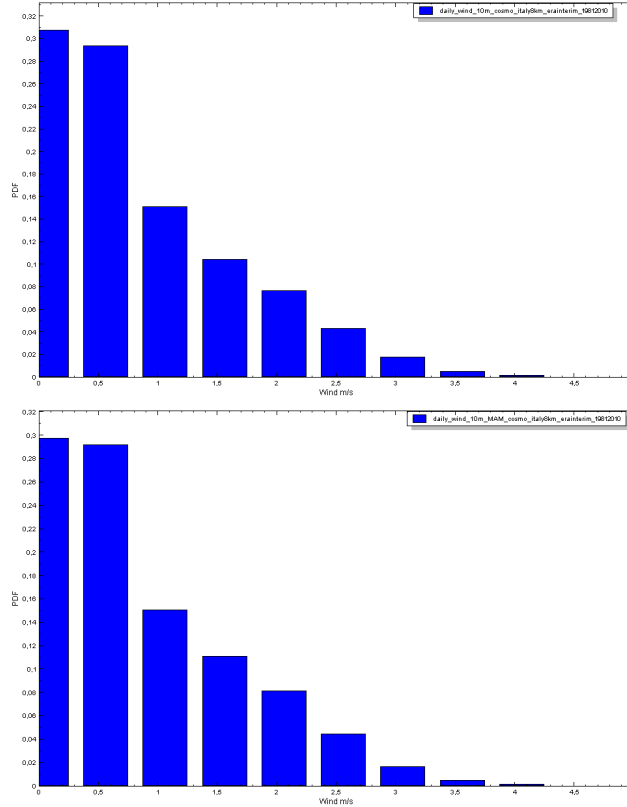


Figure 5: PDFs over Verbania-Cusio-Ossola province of daily mean wind speed values obtained considering COSMO CLM driven by ERA Interim reanalysis for a period 1981-2010 considering all seasons (on the top) and MAM season (on the bottom).

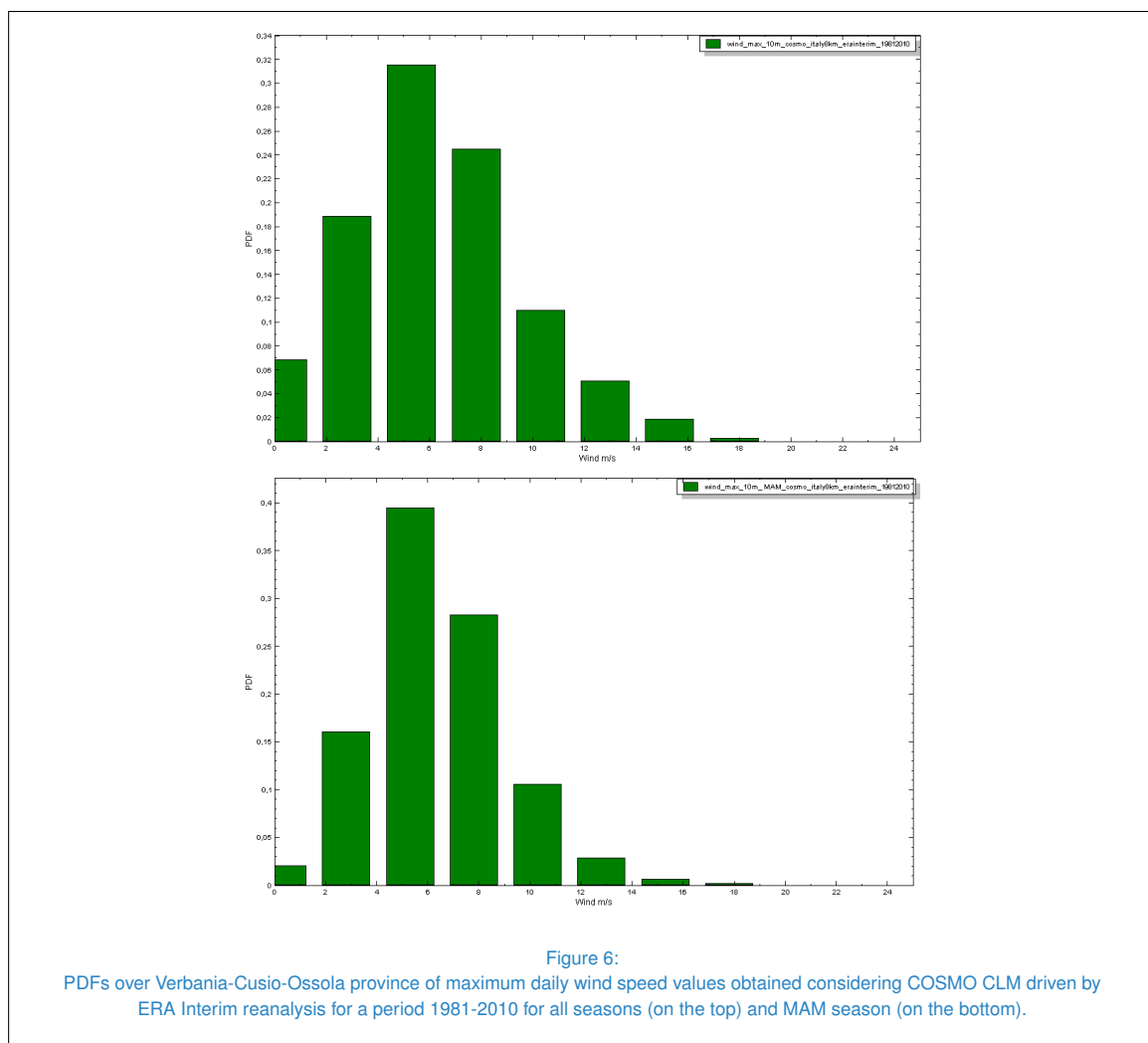
COSMO-CLM driven by ERA INTERIM output and a long time series of observed data is reported in order to quantify roughly the error between the model downscaling and the observed data.

The behaviour of COSMO-CLM in contrast to the observed data of Domodossola station for a period 1990-2010 has been investigated (results not shown). The comparison has been performed for both daily wind speeds (mean and maximum values), considering the model nearest grid point to Domodossola station and a spatially average of model grid points over Verbania-Cusio-Ossola province.

The choice of Domodossola station is due to the

fact that it presents the availability of the longest and most complete dataset. The comparison shows that COSMO-CLM driven by ERA-Interim slightly underestimates daily mean and maximum wind speeds but it represents better maximum daily values even if it is not able to correctly reproduce high wind gusts.

In order to evaluate if the event studied in the research paper has been exceptional or not, a statistical analysis of the available datasets has been performed. The PDFs (Figures 10,12,13,14,11,9) of each dataset (one for each station investigated) have been computed and the corresponding wind speed values of the event of interest have been placed on such graphs in order to evaluate the percentile ex-



ceeded. The results achieved are reported in Table 4 and Table 5.

Some discrepancies between model PDFs (Figure 5) and station ones could be due to the different periods covered by observations (up to 23 years, without considering missing values), and by COSMO-CLM data (covering a 30 years period).

The results proposed show that the meteorological event occurred over Verbania-Cusio-Ossola province has been exceptional or extreme in terms of maximum daily wind speeds for most of station investigated, confirming the

considerations achieved with the analysis of COSMO-CLM outputs. In particular Verbania Pallanza, Domodossola and Larecchio stations present the same results obtained with the model. The remaining stations achieve lower performances: events classified as exceptional are extreme in this case.

The study of daily mean wind speeds leads to deeper differences between the results achieved by COSMO and by the observational dataset. This is probably due to the fact that COSMO represents better daily maximum wind speed values rather than daily mean values.



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Table 3

Period for which data are available for each station.

Station	Period
Verbania Pallanza	2000-20013
Domodossola	1990-2013
Mottarone	1990-2013
Formazza	1990-2013
Lago Paione	2000-2013
Larecchio	1999-2013

Table 4

Comparison among the percentile exceeded by observed and COSMO-CLM daily mean distributions. The results exceptional, extreme or rare (according to observed percentiles) are reported respectively in red, orange and green and are expressed in m/s.

Station	11 May values	Observed Percentiles	COSMO percentiles
Verbania Pallanza	2.5	90th	90th
Domodossola	1.8	85th	75th
Mottarone	5.1	94th	99th
Formazza	6.7	99th	99th
Lago Paione	3.5	84th	95th
Larecchio	1.6	92th	75th

Table 5

Comparison among the percentile exceeded by observed and COSMO-CLM daily maximum distributions. The results exceptional, extreme or rare (according to observed percentiles) are reported respectively in red, orange and green and are expressed in m/s.

Station	11 May maximum values	Observed Percentiles	COSMO percentiles
Verbania Pallanza	25.6	99th	99th
Domodossola	19.3	99th	99th
Mottarone	23.1	97th	99th
Formazza	22.4	95th	99th
Lago Paione	24.6	96th	99th
Larecchio	14.5	96th	95th



In particular Verbania Pallanza, Domodossola and Formazza stations achieve the same results of COSMO model, the other ones present lower performances apart from Larecchio station whose value is classified as extreme by the observation dataset in contrast with COSMO result for which it did not reach the 90th percentile.

In conclusion, for most of stations investigated and in particular for Verbania Pallanza one, the results achieved by the downscaled model and by the observational dataset are quite similar, especially for maximum daily wind speeds that are better reproduced by COSMO-CLM. Larecchio and Lago Paione stations present deeper differences between the two analyses carried out, probably due to the fact that for these points are available only 14-15 years of data that are not sufficient to reproduce the distribution of winds. Anyway the results proposed in the present attachment are based on observed datasets longer up to 23 years and that could not be sufficient to correctly reproduce the climatology of the area but can give an idea of the statistical distribution of the variable of interest. This further analysis shows that the investigated event is not frequent and that the analysis performed on COSMO CLM forced by ERA-Interim quite correctly evaluate the rarity of the event.

COMPARISON AMONG NUMERICAL WEATHER PREDICTION MODELS AT DIFFERENT RESOLUTIONS

As previously said, the area of Verbania-Cusio-Ossola province was interested, on the 11th May 2014, by a meteorological event characterized by strong winds. These strong winds have begun to blow from 18 local time (16 UTC). Previously has been highlighted a climatological analysis of wind speeds. In order to evaluate the evolution of the weather situation in the

area of interest, instead, an analysis through the use of numerical weather prediction models, at different resolutions, has been realized. The three models selected for the achievement of this analysis are:

- T1279 ECMWF global model at about 16km of spatial resolution,
- COSMO limited area model at about 7km of spatial resolution,
- COSMO limited area model at about 1km of spatial resolution.

The nesting strategy used to perform the simulations is shown in Figure 15. The analysis of ECMWF data are obtained from the elaboration of the analysis files, in order to investigate weather situation as close as possible to reality. The variable considered is the hourly mean wind intensity at 10 m. Each analysis file is produced every 6 hours. The results obtained indicate a slight increase in the mean wind intensity at 18 UTC. Anyhow the ECMWF model spatial resolution is too coarse to detect the potential local stronger wind occurred. Therefore a more detailed evaluation has been realized through the use of COSMO-7_ ITA output, in order to obtain a dynamical downscaling of the ECMWF global model. In this second case, the output is produced each 3 hours. The variable considered in this case is the maximum 10 m wind speed. The results obtained show values of wind that are clearly higher, with respect to that obtained with ECMWF data. This is principally due to the different variable analysed, that in this case is the 10 meter maximum wind speed, but it is also connected to the higher resolution of COSMO-7_ ITA that allows visualizing also more local characteristic of the wind. The mean value of 10 meter maximum wind speed in the area of interest at 18



UTC is around 15 m/s. For brevity COSMO-7_ ITA results are not shown. The last step in the analysis concerns the evaluation of results obtained with the numerical weather prediction model at very high resolution (1.1 km). In Figures 16,17,18 are shown images for 15-18-21 UTC. Thanks to the high resolution of the simulation, is clearly visible how the pattern of wind is caught with more detailed local structures. The maximum of 10 meter maximum wind speed reaches higher values, in particular at 18 UTC. At that time, indeed, the model indicates that the area of Verbania, in which the greatest damages have been registered, is affected by strong winds, which reach almost 35 m/s. In conclusion, the results have underlined that a strong wind event hit the area of Verbania-Cusio-Ossola province. This is more evident through the use of very high resolutions numerical weather model configuration, since these events can be strongly localized over a small area.

IMPACTS ON NATURAL AND ANTHROPIC SYSTEMS

The event of the 11th May 2014 has been characterized by strong winds that caused also numerous damages and diseases. In particular, the fell of branches and trees resulted in interruption and closure of many roads [2], damages to power lines, leading to the isolation of numerous buildings [32] due to power outages. In addition the uncovering of numerous buildings [32, 31] and diseases in the navigation of Lake Maggiore have been reported [32, 31]. Fortunately no injured have been registered but different people have been stuck in elevator due to the blackout occurred [31]. The fire brigade performed more than 80 operations over the province in order to reduce the diseases caused by winds [10].

It can be noticed that the wind speeds reported

at Verbania Pallanza station (wind gusts of 25.6 m/s) and damages (fell of trees, damages to power lines, power outages) occurred are comparable to those of level F0 of Fujita scale (scale for rating tornado intensity [26]).

CONCLUSIONS

The present research paper investigated the meteorological event characterized by the presence of strong winds over Verbania-Cusio-Ossola province. Such event has been chosen because it is the most recent wind storm that took place over such area. The analyses of 99th, 95th and 90th percentiles of daily (mean and maximum) wind speed values reported that the event has been exceptional in terms of daily mean wind speed values and maximum daily wind speed values in most stations investigated. This is due to the presence of Foehn conditions that caused strong winds that last several hours over entire Piedmont region. Finally the impacts on anthropic and natural systems have been reported, showing that the strong winds caused numerous damages and diseases.

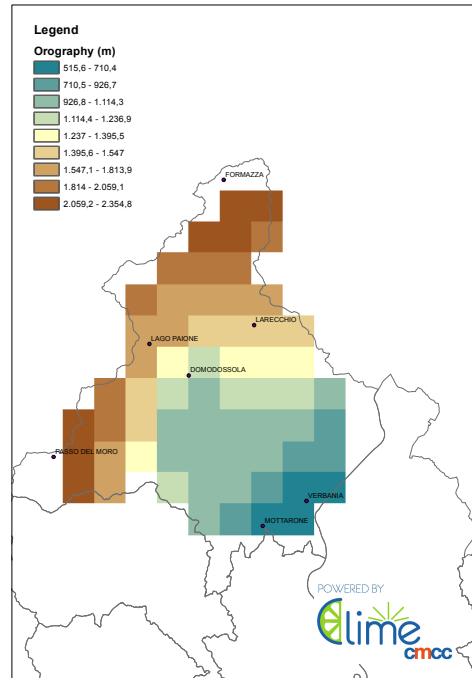
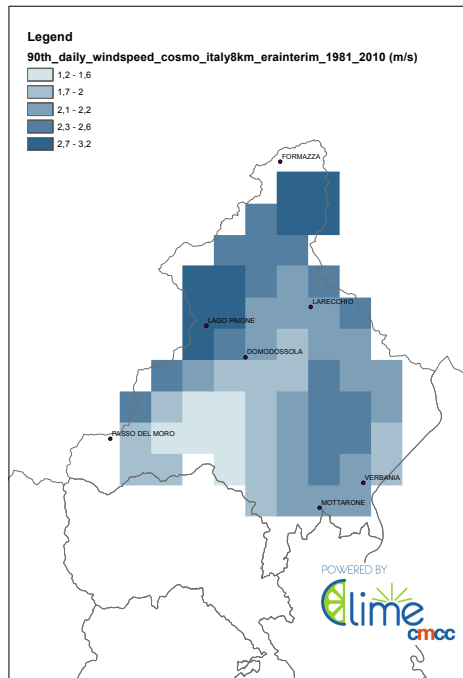
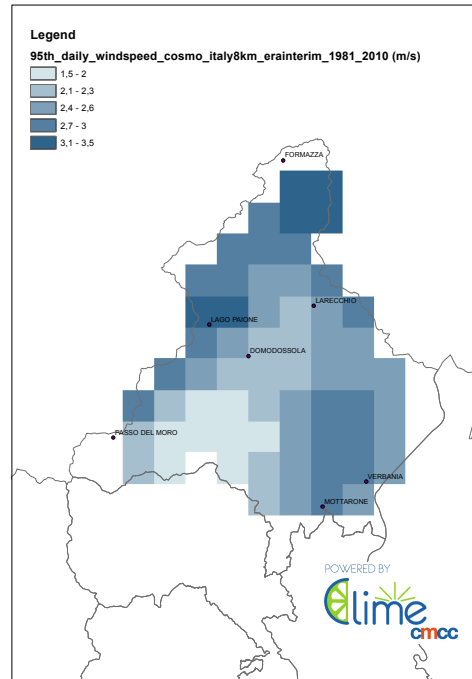
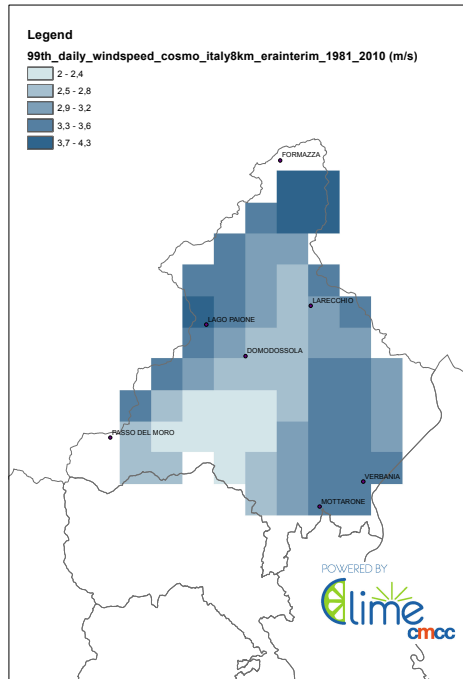


Figure 7: Representations of the 99th, 95th, 90 percentiles of daily mean wind speeds (m/s) over Verbania-Cusio-Ossola province, considering COSMO-CLM driven by ERA-Interim for period 1981-2010. The last figure reports the orography of the area in m.

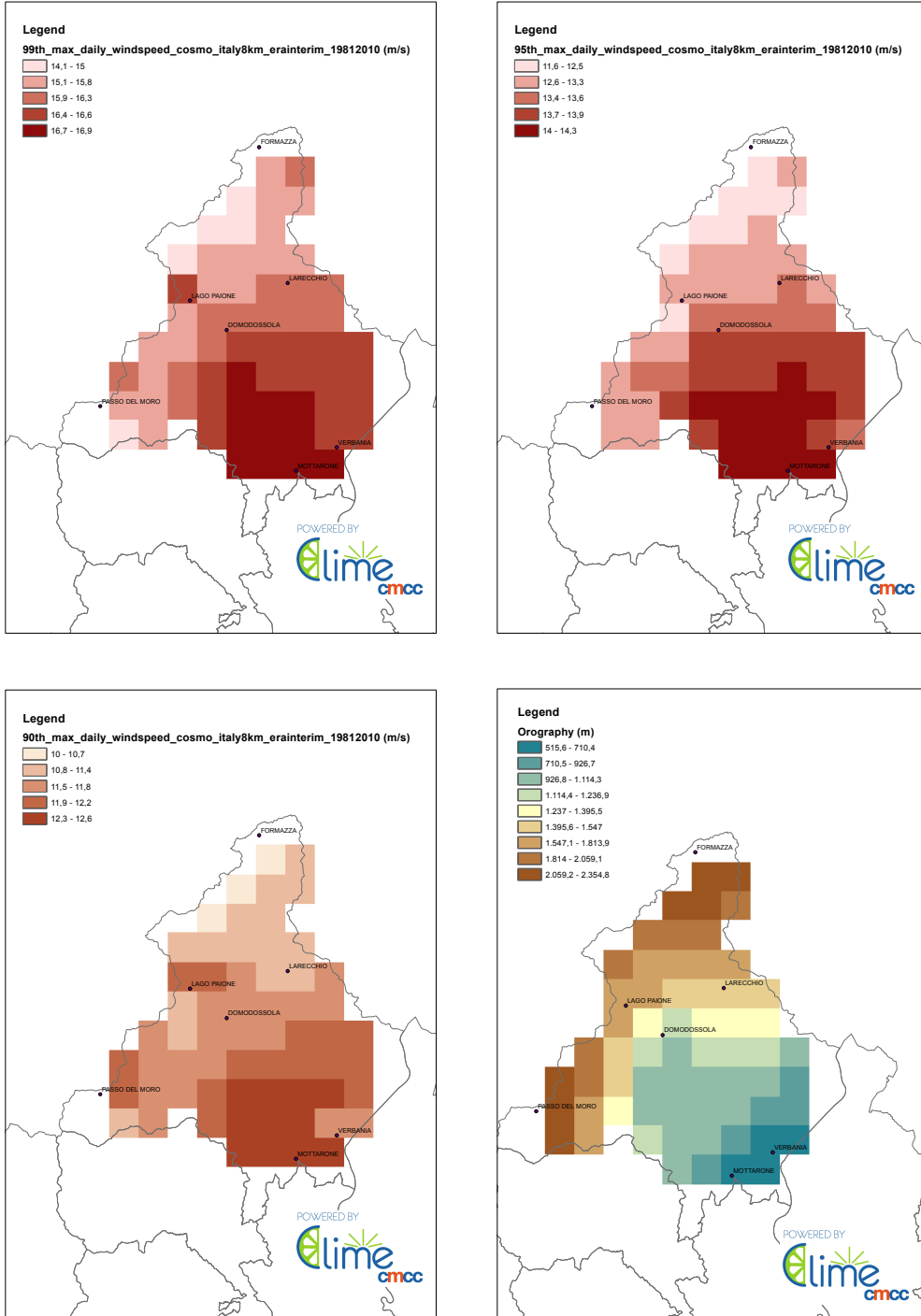
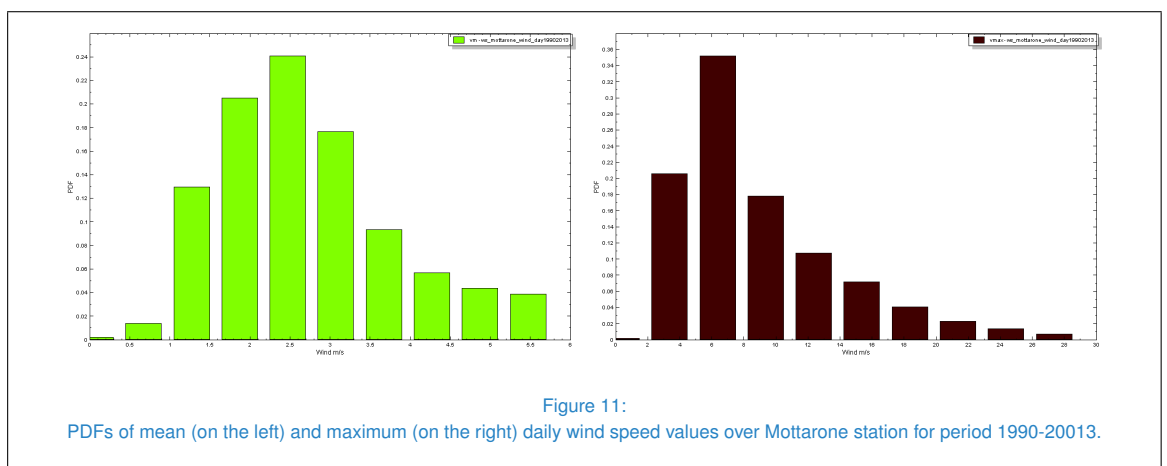
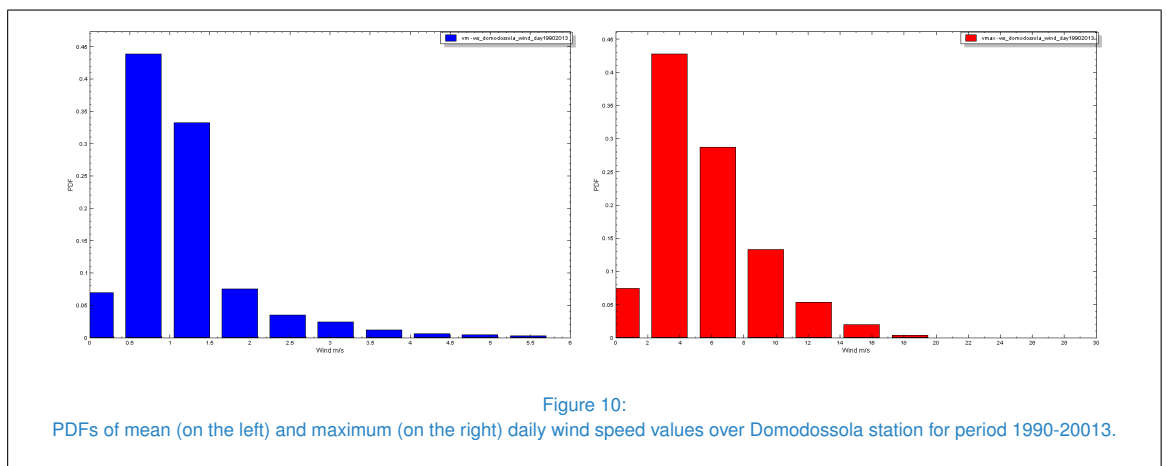
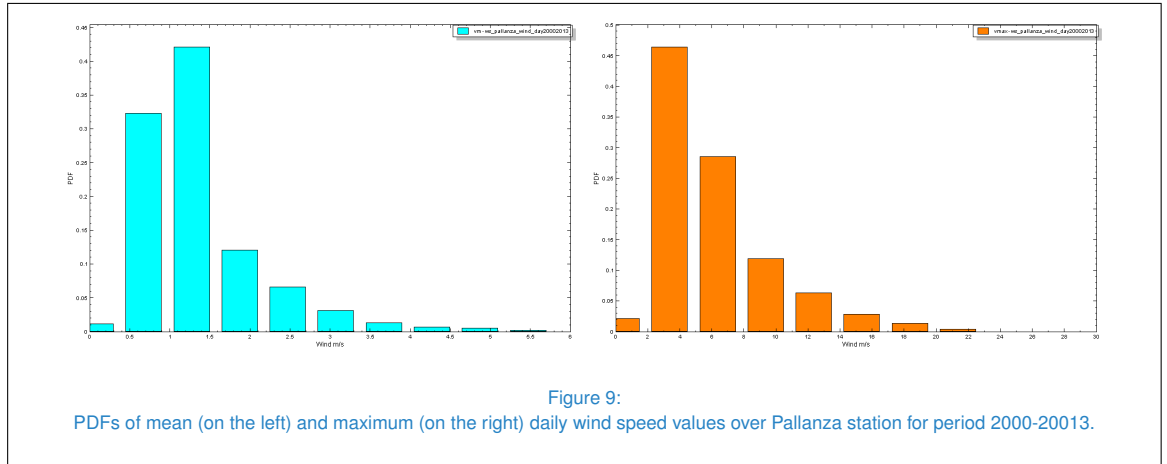


Figure 8:

Representations of the 99th, 95th, 90 percentiles of maximum daily wind speeds (m/s) over Verbania-Cusio-Ossola province, considering COSMO-CLM driven by ERA-Interim for period 1981-2010. The last figure reports the orography of the area in m.



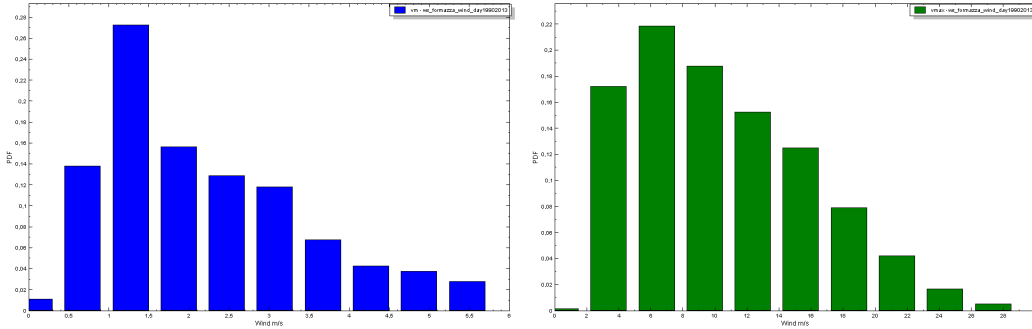


Figure 12: PDFs of mean (on the left) and maximum (on the right) daily wind speed values over Formazza station for period 1990-20013.

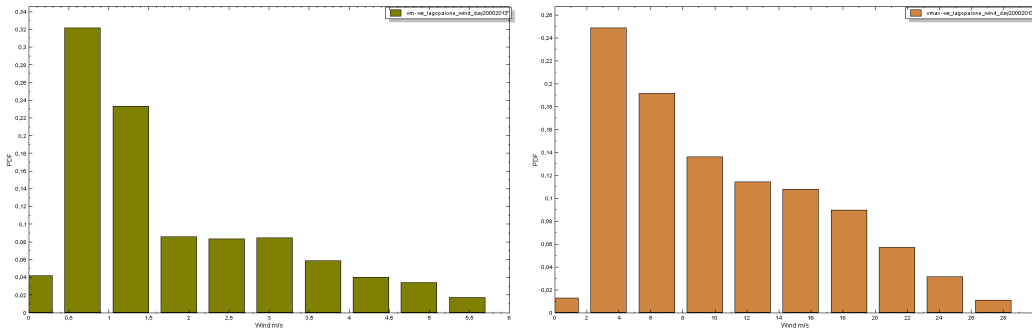


Figure 13: PDFs of mean (on the left) and maximum (on the right) daily wind speed values over Lago Paione station for period 2000-20013.

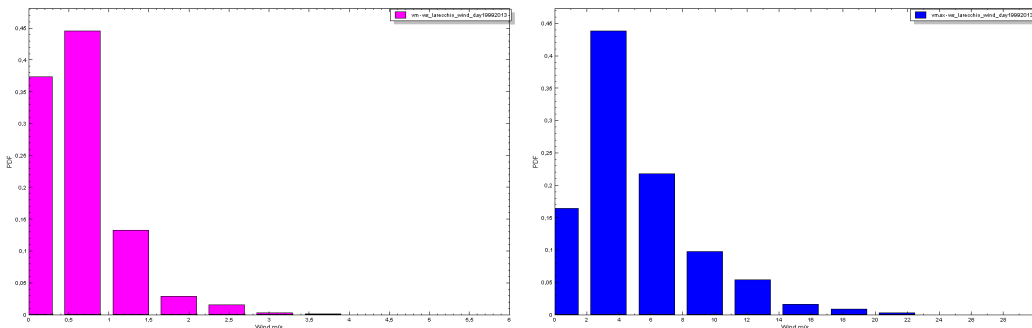
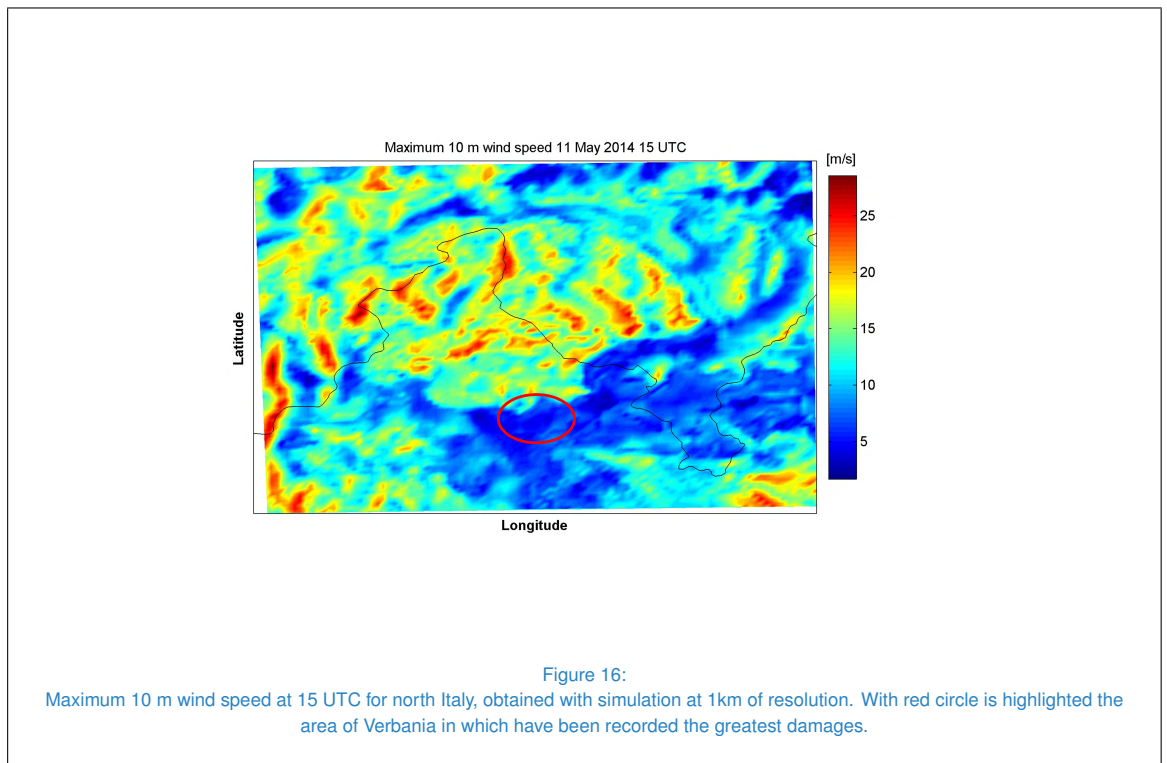
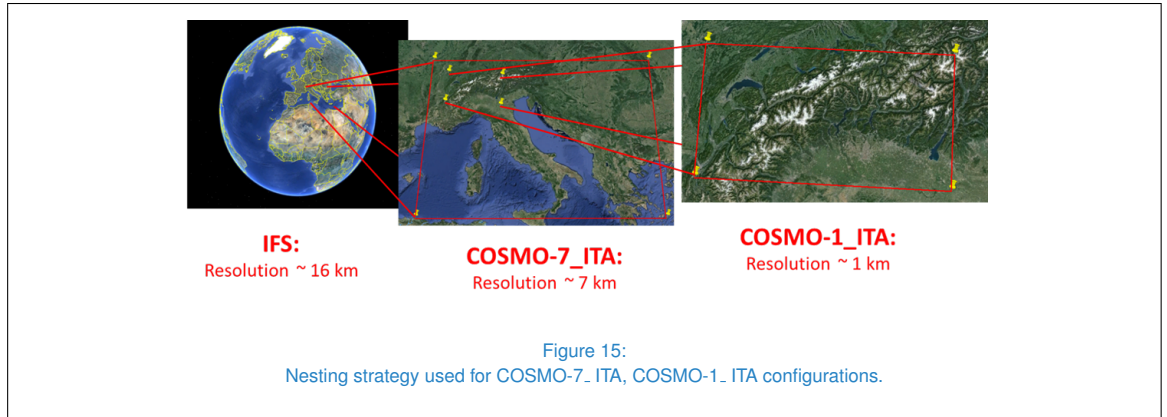


Figure 14: PDFs of mean (on the left) and maximum (on the right) daily wind speed values over Larcchio station for period 1999-20013.



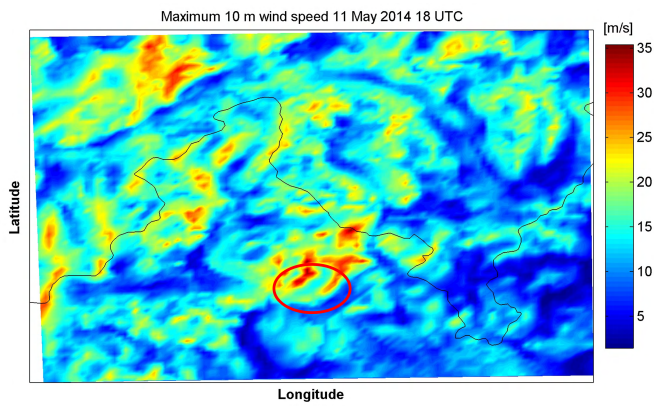


Figure 17:
Maximum 10 m wind speed at 18 UTC for north Italy, obtained with simulation at 1km of resolution. With red circle is highlighted the area of Verbania in which have been recorded the greatest damages.

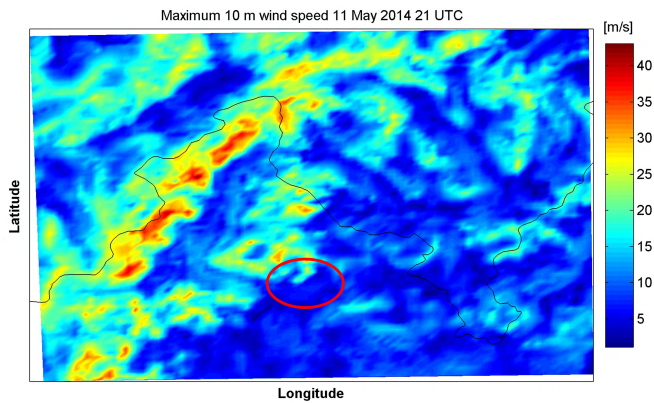


Figure 18:
Maximum 10 m wind speed at 21 UTC for north Italy, obtained with simulation at 1km of resolution. With red circle is highlighted the area of Verbania in which have been recorded the greatest damages.



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ANNEX: METEOROLOGICAL BULLETINS

The present sections reports extracts of meteorological bulletins and press releases describing the event of interest.

- Arpa Piemonte meteorological alert;
- ANAS press release;
- fire brigade report on operations performed;
- press releases concerning the event of the 11th May 2014.

SITUAZIONE METEOROLOGICA NELLA REGIONE PIEMONTE

Relativa alla giornata di domenica 11 maggio 2014

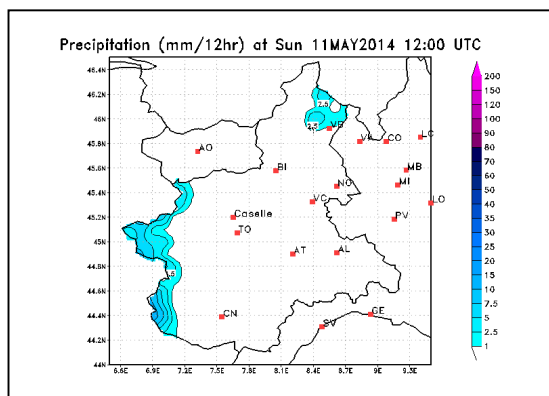
SITUAZIONE GENERALE: Un fronte freddo di provenienza nordatlantica sconfina da nord sull'arco alpino portando instabilità e temporali al nord della regione. Il nord Italia si trova in corrispondenza della corrente a getto con valori di pressione al suolo tipici di condizioni di foehn. Si registrano infatti venti forti su tutta la regione dalle prime ore del pomeriggio che portano rasserenamenti in pianura e condizioni di muro del foehn sulle creste

NUVOLOSITA': Cielo nuvoloso al mattino, poi rasserenamento generale a partire dalla pianura per forti condizioni di foehn. Nuova copertura sulle Alpi nordoccidentali nel tardo pomeriggio.

VISIBILITA': Ottima/Buona Foschie o banchi di nebbia Nebbie diffuse o persistenti

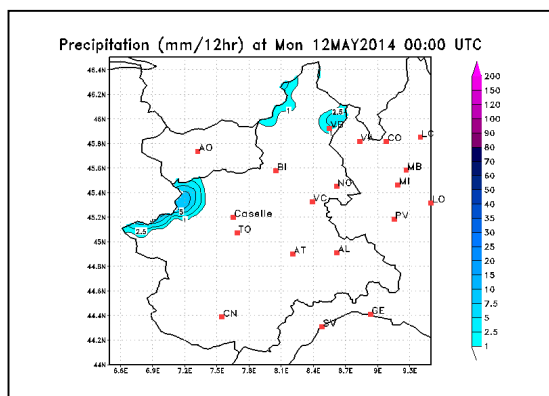
PRECIPITAZIONI 0 - 12: Deboli o localmente moderate sull'arco alpino occidentale e settentrionale.

	Media Zone	mm	Max 12 h	mm	Max 3 h >20mm	mm
A	Toce	0.7	CANDOGLIA TOCE	7.2		
B	Dora Baltea - Sesia		GRESSONEY-L.T.-	0.4		
C	Orco -Bassa Dora Riparia Sangone	0.7	BARCENISIO	8.6		
D	Alta Dora Riparia - Po	3.2	COLLE BERZIA	9.6		
E	Varaita - Stura	1.8	ACCEGLIO COLLET	10		
F	Alto Tanaro					
G	Belbo Bormida					
H	Scivia	0.1	TORRIGLIA	1.6		
I	Pianura Settentrionale					
L	Pianura Torinese - colline					
M	Pianura cuneese					



PRECIPITAZIONI 12 - 24: Residui rovesci sulle Alpi nordoccidentali e sul Verbano.

	Media Zone	mm	Max 12 h	mm	Max 3 h >20mm	mm
A	Toce	0.9	UNCHIO TROBASO	5.4		
B	Dora Baltea - Sesia					
C	Orco -Bassa Dora Riparia Sangone	1.7	FORNO ALPI GRAI	12		
D	Alta Dora Riparia - Po	0.4	ROCHEMOLLES	5.8		
E	Varaita - Stura					
F	Alto Tanaro					
G	Belbo Bormida					
H	Scivia					
I	Pianura Settentrionale					
L	Pianura Torinese - colline					
M	Pianura cuneese					



ZERO TERMICO (in m): in calo da 3200 a 2600 m

QUOTA NEVE (in m): 1800

TEMPERATURE: massime in lieve calo, minime stazionarie

quota	Max	Trend	Min	Trend	Media	Trend
< 700	23 ± 2	-1	12 ± 2	0	17 ± 4	-1
700-1500	17 ± 3	-3	10 ± 2	0	12 ± 4	-3
> 1500	8 ± 5	-7	5 ± 4	-1	4 ± 5	-5

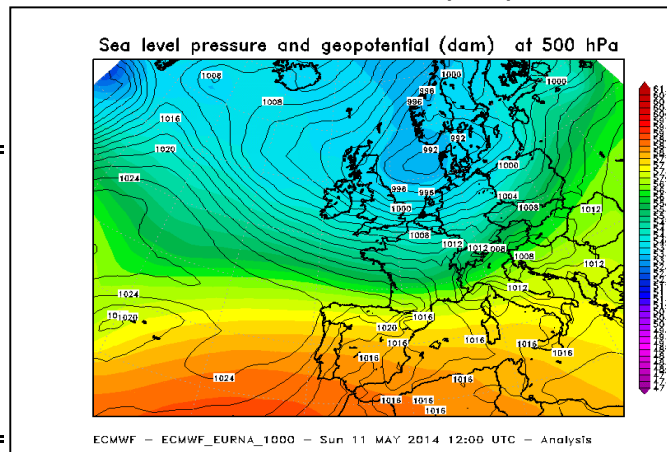
VENTI: moderati al mattino forti al pomeriggio sia in pianura che in montagna.

Periodo	Pianura		Montagna	
	Velocità (m/s)	Direzione	Velocità (m/s)	Direzione
00-12 UTC	2.4	Da Quadranti NW	4.3	Da Quadranti NW
12-24 UTC	4.3	Da Quadranti N	5.3	Variabile

EVENTI DI FOEHN: Intense condizioni di foehn su vallate e pianura da metà giornata a tarda serata.

Emesso il : 12/5/14 10.04

TIPO DI TEMPO (cod.): 90/100



Piemonte, Anas: possibili interruzioni del traffico per vento forte sulla SS33, in provincia di
Verbano-Cusio-Ossola

L'Anas comunica che sulla strada statale 33 `del Sempione` il traffico potrà subire alcuni brevi blocchi della circolazione per la presenza di alberi sulla carreggiata a causa del vento forte, tra Ornavasso (Km 97,2) e Domodossola (Km 122,8), in entrambe le direzioni, in provincia di Verbano-Cusio-Ossola.

Il personale dell'Anas e le Forze dell'Ordine sono presenti sul posto per consentire la circolazione in piena sicurezza.

L'Anas raccomanda agli automobilisti prudenza nella guida e ricorda che l'evoluzione della situazione del traffico in tempo reale è consultabile sul sito web <http://www.stradeanas.it/traffico> oppure su tutti gli smartphone e i tablet, grazie all'applicazione `VAI Anas Plus`, disponibile gratuitamente in `App store` e in `Play store`.

Gli utenti hanno poi a disposizione la web tv www.stradeanas.tv e il numero 841-148 `Pronto Anas` per informazioni sull'intera rete Anas.

Torino, 11 maggio 2014

Verbania, numerosi interventi effettuati per il forte vento

Approfondimenti

- [Galleria immagini](#)



Sono stati più di 80 gli interventi effettuati dai Vigili del Fuoco del Comando del Verbano Cusio Ossola a seguito delle forte raffiche di vento che si sono abbattute, a partire dal pomeriggio di domenica 11 maggio, prima su Domodossola e Villadossola e poi sul territorio di Verbania e Gravellona Toce.

I Vigili del Fuoco del Comando, supportati anche dal personale volontario, hanno operato per liberare le strade bloccate da alberi e rami caduti e per rimuovere numerose coperture divelte e auto colpite da rami spezzati. Fortunatamente, non si segnalano danni a persone.

Particolarmente colpita è stata la S.S. 33 del Sempione che, a causa della caduta di numerose piante, è stata chiusa al traffico per permettere ai Vigili del Fuoco di liberare la carreggiata. Solo in serata, quando le condizioni meteo sono nettamente migliorate, la strada è stata riaperta al traffico.

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VERBANO CUSIO OSSOLA

11/05/2014 - IL MALTEMPO PROVOCA DISAGI PESANTI

Black out e piante divelte: il vento flagella Verbano e Ossola

Chiusa la superstrada tra Crevoladossola e Domo Sud, molte richieste di aiuto da persone bloccate negli ascensori. Spazzati via i tendoni della festa patronale di San Vittore

DAVIDE BORETTI

VERBANIA

Disagi per le forti raffiche di vento in tutta la provincia. In Ossola a causa della caduta di piante la superstrada è tutta bloccata: i vigili del fuoco stanno operando in più punti per liberare la carreggiata e deviare il traffico.

L'evoluzione della situazione del traffico in tempo reale è consultabile sul sito web



Gli alberi abbattuti dal vento sulla superstrada ossolana



Distrutto il tendone della festa



Pianta travolge un'auto sulla superstrada

<http://www.stradeanas.it/traffico> oppure su tutti gli smartphone e i tablet, grazie all'applicazione «VAI Anas Plus», disponibile gratuitamente in «App store» e in «Play store». E' poi a disposizione la web tv www.stradeanas.tv e il numero 841-148 Pronto Anas per informazioni sull'intera rete Anas.

Fortissime raffiche di vento hanno colpito anche nella zona di Ornavasso e Mergozzo. Alcune auto sono danneggiate dalla caduta di alberi, al momento per fortuna non si registrano feriti.

Il centro storico di Intra e diverse zone di Verbania sono senza elettricità. Decine le chiamate ai vigili del fuoco su tutto il territorio, anche per persone rimaste intrappolate negli ascensori. È finita in anticipo la festa di San Vittore, patrono di Verbania: il vento ha divolto i tendoni dei Pacian da Intra in piazza Fasana annullando cena e musica che erano in programma per la conclusione della patronale. I volontari del comitato hanno «raccolto» ciò che il vento aveva buttato a terra e dichiarato chiusa la festa. Sempre per il vento a Pallanza e Possaccio è andata via la luce, tornata dopo circa un'ora.

A Masera due piante hanno tranciato i cavi elettrici. Disagi per la caduta di massi anche in tutte le valli dell'Ossola e del Cusio.

Sospesa a metà del primo tempo la partita di calcio tra Virtus Villadossola e Veruno.

Estratto da "La Stampa" del 11.05.2014

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Vento forte su Ossola e Verbanò

Dettagli Pubblicato Domenica, 11 Maggio 2014 18:59 Scritto da Daniele Plovera Visite: 3575

Il vento forte che da alcune ore soffia impetuoso soprattutto in Ossola e sul Verbanò sta causando disagi e problemi. A Domodossola danni ai tetti della piscina, chiusa la superstrada all'altezza dello svincolo di Domo Sud: alcuni rami sono finiti su un'auto. Un albero è caduto nella zona di Mergozzo, tranciando i cavi telefonici. Fermo in mezzo al lago Maggiore un traghetto a causa del vento



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ATTENZIONE: L'APPUNTAMENTO CON BUFFONI DI MERCOLEDÌ 14 AL PALASPORT ALLE ORE 18 E NON ALLE 16
IN SCENA "I QUATTROGATTI"

DANNI PER IL FORTE VENTO

Publicato il 11 maggio 2014 da Sergio Ronchi



Alberi sulla strada in via Fiume.



Tagole a terra in piazza Pasquè.

Un vento fortissimo sta provocando danni in città e dintorni. Tra le conseguenze si segnalano rami e alberi caduti su alcune strade (alcune vie di collegamento sono interrotte non solo nel Verbania, ma anche in varie parti dell'Ossola), rimozione di coperture di case e capannoni, interruzioni dei correnti elettrica in gran parte della città, problemi per la navigazione sul lago dove tra l'altro un traghetto

è rimasto fermo a lungo tra Intra e Laveno. Decine le chiamate ai vigili del fuoco, diverse persone sono rimaste bloccate in ascensori. Fine anticipata per i festeggiamenti patronali di San Vittore, poiché il vento ha buttato a terra i tendoni allestiti alle spalle della basilica dove in serata ci sarebbero stati gli appuntamenti conclusivi. Al parcheggio dell'Ospedale Castelli alcuni cartelloni pubblicitari divelti sono finiti sulle auto in sosta. L'energia elettrica è mancata a lungo in gran parte di Verbania e nella zona collinare poiché cadute di alberi hanno danneggiato le linee ad alta tensione che alimentano la città. Si è tuttora al lavoro per ripristinare il servizio, cosa che avviene solo gradualmente zona per zona.

Condividi 4 Mi piace 4 Invia Tweet 81



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