

uropean Severe Storms Laboratory
ESSL Newsletter
2025-1

January 2025

In Memoriam: Prof. Dr. Robert Sausen (1955–2025)



Prof. Dr. Robert Sausen, Deputy Director of the DLR Institute for Atmospheric Physics, passed away on January 4, 2025, at the age of 69.

Robert Sausen has been a crucial supporter of ESSL in the years after its founding. He served as the first Chair of the ESSL Advisory Council from 2008 until 2015, supporting ESSL in countless ways. In those days, his support of ESSL, being the legacy of Nikolai Dotzek, was crucial.

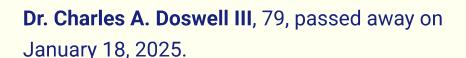
We are very grateful to him and wish his wife, family, friends, former colleagues, and others close to him strength to cope with this loss.

A longer obituary can be found on the website of DLR:

https://www.dlr.de/en/pa/latest/news/2025/prof-robert-sausen

In Memoriam: Charles (Chuck) A. Doswell III (1945 – 2025)





Chuck Doswell was a pioneer in severe storms meteorology and a researcher who worked at several organizations, including the National Severe Storms Laboratory in Norman, Oklahoma, where he retired in 2001. He not only had a strong interest in severe weather research but was also committed to ensuring that it led to quantifiable and meaningful outcomes.

He had a remarkable talent for simplifying the complexity of severe storm forecasting to its core fundamentals—*lift, moisture, and instability*—for which he was awarded the Nikolai Dotzek Award in 2013. Whenever he presented these concepts, he ensured his audience fully understood them, delivering them in his own unique and engaging style.

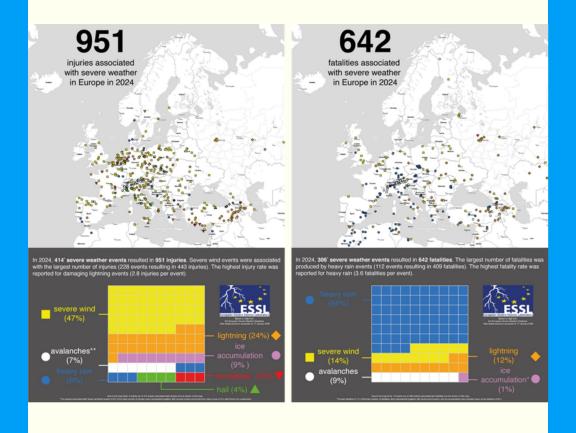
Chuck was an extraordinary supporter of the European Severe Storms community and was honored as an Honorary Member of ESSL. ESSL is deeply grateful for his contributions, from consulting on the European Severe Weather Database to teaching at the ESSL Testbeds and courses.

ESWD summary of 2024

As at the beginning of every year, we present an annual overview of reports from the **European**Severe Weather Database (ESWD) on severe weather events.

In 2024, **414** severe weather events resulted in **951** injuries. Severe wind events were once again associated with the largest number of injuries, with 228 events causing 443 injuries. However, the highest injury rate was recorded for damaging lightning events, averaging 2.8 injuries per event.

Unfortunately, 642 deaths were reported as a result of 306 weather events. Heavy rain was the predominant cause of fatalities, with the highest fatality rate—409 deaths across 112 events, averaging 3.6 fatalities per event.



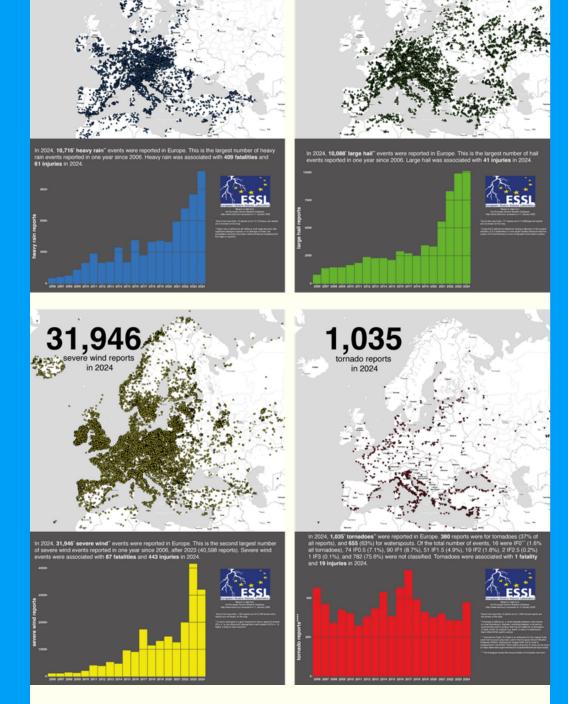
Heavy Rain – A total of 10,716 heavy rain events were reported to the ESWD in 2024 for Europe. This represents the largest number of heavy rain events recorded in a single year since 2006. Heavy rain was associated with 409 fatalities and 61 injuries.

Large hail – A total of 10,088 large hail events were reported in Europe, also the highest number recorded in one year since 2006. In 2024, large hail events were linked to 41 injuries.

You can read more about <u>Major hailstorms of</u> 2024 in the blog written by Tomáš Púčik.

Severe Wind – There were 31,946 severe wind events, making it the second-largest number reported in a single year since 2006, following 2023, which had 40,598 reports. Severe wind events in 2024 were linked to 87 fatalities and 443 injuries.

Tornadoes – A total of **1,035 tornadoes** were reported in Europe, the majority of which (655 or 63%) were waterspouts. Of the total number of events, the majority –782 events (75.6%)— were not classified according to the International Fujita (IF) scale. Among the classified tornadoes, 16 were rated IF0, 74 as IF0.5, 90 as IF1, 51 as IF1.5, 19 as IF2, 2 as IF2.5, and 1 as IF3. Tornadoes were associated with **1 fatality and 19 injuries**.



ESSL-EUMETSAT Annual Forecaster Event 2025

Join us on 25th of March to hear the news about MTG and training possibilities as well as experiences from the workshops and Testbeds last year. At the end you will experience some exciting cases with our Senior Trainer and

Researcher Tomáš Púčik.

Participation is free of cost and pre-registration is required.

Registration page



Free places at basic convection forecasting courses

For both ESSL spring courses, the regular one called "Forecasting Severe Convective Storms" offered 31 March to 4 April 2025, and the aviation edition called "Aviation Forecasting of Severe Convection" and offered 8 to 11 April, places are still available. Both courses offer unique opportunity for a learning experience of high renown. Sound theory meets daily practical exercises and leading-edge forecasting

techniques. ESSL member institutions are given discount on the regular registration fees.

Completely new course on storm damage assessment

From 8 to 11 September, ESSL will be organizing a **novel course on storm damage rating**. Target groups are weather service employees, the insurance sector, interested scientists, and emergency managers. Until now, knowledge on windstorm damage assessment techniques is rather limited in Europe. With its new IF-Scale, a recently developed damage rating app, and practical experience from field works after many windstorm, downburst and tornado events, the ESSL is now able to offer both a comprehensive theoretical concept and practicals to interested estimates of parties. Sound maximum windspeeds are vital, especially for convective events, and the essential basis for any further climatology, statistics and science. During the course, one can learn preparedness for and organization of damage assessment field trips, the application of the IF-Scale to fresh and past evidence, post-event analysis and high-quality ratings of damaging events. This forensic meteorology course is unique and will deal with wooden and manmade plants structures. Distinction between straight-line winds and tornadoes is part of the curriculum.

Register here.

ESSL training calendar 2025

You can find details about all events and registration at

https://www.events.essl.org/

Date	Activity
11 – 13 February 2025	Tailored forecaster training course in Slovenia - closed event
18 – 20 March 2025	Tailored forecaster training course in Slovenia - closed event
25 March 2025	ESSL-EUMETSAT Annual Forecaster Event 2025 Online event 13-15 UTC, free of cost, pre-registration required.
31 March – 4 April 2025	Course: Forecasting Severe Convective Storms – spring edition
7 – 11 April 2025	Course: Aviation Forecasting of Severe Convective Storms (spring ed.)
5 – 9 May, 12 – 16 May, 2 – 6 June 2025	ESSL-EUMETSAT Forecaster Testbed weeks
23 – 27 June 2025	ESSL Testbed 2025 – expert week
30 June – 4 July 2025	ESSL Testbed 2025 – regular week
1 – 5 September 2025	ESSL-EUMETSAT Forecaster Testbed week
8 - 11 September 2025	NEW Course: Damage assessment of extreme wind events
8 – 12 September 2025	EMS Annual Meeting (co-sponsored by ESSL) Ljubljana, Slovenia
6 – 10 October 2025	Course: Forecasting Severe Convective Storms – autumn edition
13 – 17 October 2025	ESSL-EUMETSAT Forecaster Testbed week
3 - 7 November 2025	Course: Aviation Forecasting of Severe Convective Storms (autumn ed.)
17 – 21 November 2025	12th European Conference on Severe Storms (ECSS2025) Utrecht, The Netherlands
21 November 2025 (afternoon)	ESSL-EUMETSAT Forecaster Workshop on MTG FCI and LI Utrecht, The Netherlands (ECSS venue)

Unsure which course to attend? Try our online quiz!

For further information about the registration for these events, please contact us at: events@essl.org.

Or approach us for tailored trainings or forecaster

training on-the-job.

ECSS2025 Second Announcement and Call for Papers

Please find here a link to the "Second Announcement and Call for Papers of the 12th European Conference on Severe Storms" to be held in Utrecht, Netherlands, 17 - 21 November 2025.

ECSS Registration and Abstract Submission are now open!

Abstract submission deadline: 6 June 2025

ECSS website: www.ecss.eu









ESSL

European Severe Storms Laboratory

Preferences | Unsubscribe