

EVENING SESSION: PICTURES AND VIDEOS OF SEVERE CONVECTIVE WEATHER

Marko Korošec

*University of Ljubljana, Faculty for Mathematics and Physics, Jadranska 19, SI-1000 Ljubljana, Slovenia,
info@weather-photos.-net*

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I. INTRODUCTION

During the last several years, I have been involved in several storm chasing and photographic expeditions in central Europe and also in the heart of Tornado Alley in United States of America. One of the reasons of documenting storm structure while observing storms is also to have an additional source of data besides ground observations and remote sensors, like radar and satellite data, for research purposes.



Fig.1: Well structured mesocyclone in North Italy on July 7th, 2009.

II. PRESENTATION OF RESEARCH

Pictures of severe weather phenomena like storm structure, tornadoes and other storm cloud features can be used for further analysis of severity of convective storms and their behavior. Creating videos and time-lapse movies of storm structure can show us an important processes inside the convective storms, evolution of its rotating updraft and other features accompanied with the development of tornadogenesis for example. Through my chasing expeditions I have been researching severe convective storms in the last couple of years and many useful notes have been learned from the dynamics of storm structure and its features, including signs of convective initiation, rapid storm development, evolution of rear flank downdraft, gust front, etc. In addition, with a combination of using the model maps, satellite, radar and skew-t data or other parameters, all together can be used for analysis of a certain convective event.



Fig.2: Night time tornado over Trieste gulf on August 8th, 2008

III. RESULTS AND CONCLUSIONS

Numerous pictures and videos have been collected that represent behavior of convective storms and several case studies have already been done with the help of pictures/time-lapse movies to classify type or severity of convective storms and their features.



Fig.3: Striated shelf cloud over gulf of Trieste on August 23rd, 2009



Fig.4: Lightning strikes over gulf of Trieste on August 10th, 2009

IV. REFERENCES

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