



Sky Watchers

Guide to Weather



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Acknowledgments

Many hands helped to produce the Sky Watchers Guide to Weather. I would like to acknowledge, with gratitude, the significant contributions made by Environment Canada staff across the country. Their interest, enthusiasm, and innovative ideas have enhanced not only the guide but the program as well.

We hope you enjoy using the new guide as much as we enjoyed putting it together.

Happy Sky Watching from all of us at Environment Canada!

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When the parliament of the then new Dominion of Canada created the country's weather service in 1871, the weather observers collected information about the temperature, air pressure, precipitation, wind speed and direction. They also observed the sky and all that it contained. Just like Sky Watchers. As Sky Watchers, however, you also have the chance to progress from observing the weather to trying your hand at developing a forecast.

The Sky Watchers Guide to Weather is a resource for this program and is divided into seven main chapters.

1. **FIRST STEPS** explains how to set up the instruments in the Sky Watchers kit, and take readings with them.
2. **WHAT MAKES WEATHER** looks at the roles which sun, air pressure, air masses, and fronts play in the story of weather.
3. **WEATHER ELEMENTS** discusses variations in temperature and humidity, as well as different cloud formations and the types of precipitation they produce.

4. **SEVERE WEATHER IN CANADA**

outlines what sets these storms apart from ordinary storms.

5. **WEATHER AND CANADIANS**

describes how weather affects almost every facet of daily life and why the climate may be changing.

6. **ULTRAVIOLET RADIATION** focuses on the UV Index — why it was created, what it means, and how to use it to protect yourself from over-exposure to the sun.

7. **PUTTING IT ALL TOGETHER** explains how Sky Watchers can pull all this information together and, with the help of a few guidelines, develop their own forecasts.

There are activities throughout the guide and experiments at the end, along with the glossary and lists of books and websites about weather for the weather buffs in the class.

Have fun and thanks for being a Sky Watcher.