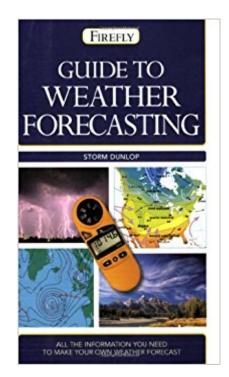


## The book was found

# Guide To Weather Forecasting: All The Information You'll Need To Make Your Own Weather Forecast (Firefly Pocket Series)





### Synopsis

A concise guide to weather systems and weather forecasting. As recent events have shown, weather can have very different consequences depending on where you live. b>Guide to Weather Forecasting covers every aspect of making a forecast and is a handy resource to understanding the professionals' daily weather predictions. Storm Dunlop provides detailed information and expert explanations, including: What causes weather Weather systems and how they change Recognizing clouds and sky appearance Weather conditions, such as depressions, lows and highs, wind systems and direction, dew point, humidity, visibility, frost, anticyclones and snow The readings meteorologists use when developing a forecast Extreme weather and climate change Guide to Weather Forecasting also covers charts, satellite images and instruments that can be used at home. With its many color photographs and diagrams, handy glossary and useful index, this is an ideal quick reference for the amateur and semiprofessional weather forecaster.

#### **Book Information**

Series: Firefly Pocket series Paperback: 176 pages Publisher: Firefly Books (February 15, 2008) Language: English ISBN-10: 1554073693 ISBN-13: 978-1554073696 Product Dimensions: 5 x 0.5 x 7.8 inches Shipping Weight: 8.8 ounces (View shipping rates and policies) Average Customer Review: 3.9 out of 5 stars 11 customer reviews Best Sellers Rank: #577,503 in Books (See Top 100 in Books) #108 in Books > Science & Math > Earth Sciences > Mineralogy #543 in Books > Science & Math > Earth Sciences > Rivers #674 in Books > Science & Math > Earth Sciences > Weather

#### **Customer Reviews**

Storm Dunlop is a well-known authority on meteorology and astronomy and is the author of Practical Astronomy.

Excerpted from Chapter 1: The Origins of Weather The Atmosphere and the Global Circulation It may seem a little strange to begin talking about weather forecasting by describing conditions over the whole Earth, but in fact it makes sense. Forecasting the weather requires a knowledge of the

situation over a large area 'upwind' (so to speak) of the area in which you are interested. To forecast just one day ahead, professional weather forecasters in Europe, for example, need to know what is happening right across the Atlantic. Similarly, forecasters on the West Coast of North America require details of the situation across the Pacific as far as Japan. In preparing forecasts for three days ahead, forecasters need detailed information about conditions across the whole Earth, including data from the southern hemisphere and Antarctica. An understanding of the basic mechanisms driving the weather is extremely helpful for predicting what is going to happen on even a local scale. The structure of the atmosphere Most weather phenomena, including the majority of clouds, occur in the lowest layer of the atmosphere, the troposphere. This is extremely thin compared with the size of the Earth, which has an equatorial diameter of 7,926 mi (12,756 km) and 7,900 ml (12,714 km) measured across the poles. Yet the troposphere extends to about 11-12 mi (18-20 km) at the most (in the equatorial regions) and to just about 4.3 mi (7 km) at the poles. The level of the top of the troposphere, called the tropopause, is defined by a change in the way the temperature behaves with increasing altitude. Between the surface and the tropopause the temperature generally decreases with height -- albeit often in an irregular manner. The changes in temperature with height are extremely important for the formation of clouds, as we shall see later (p.24). At the tropopause, the decline ceases, and the temperature tends to remain constant in the lowest region of the next layer, the stratosphere (p.5). It then starts to increase with height, reaching a maximum at an altitude of about 31 mi (50 km). This heating in the stratosphere is the result of the absorption of ultraviolet radiation from the Sun by molecules of ozone whose greatest concentration occurs at about 12-15.5 mi (20-25 km). The destruction of this ozone by manmade chemicals has led to the formation of the seasonal 'ozone holes' over the Antarctic and Arctic regions. There are few clouds in the stratosphere, although sometimes there are ice-crystal clouds in the lowermost region, including, on rare occasions, beautiful nacreous clouds (pp.51 -2). At the top of the stratosphere, at the stratopause, which lies at an altitude of approximately 31 mi (50 km), the temperature again begins to decrease with height within the layer known as the mesosphere. The very lowest temperatures in the atmosphere (-260 to -148Å F (-163 to -100Å C)) are found at the top of the mesosphere, at the mesopause, which is generally at an altitude of about 53 mi (86 km) (or roughly 62 mi (100 km) over the polar regions in summer). Conditions in the mesosphere have no direct effect on the weather down at the surface, but the highest clouds in the atmosphere, noctilucent clouds (pp.52-3), occur just below the mesopause and are sometimes visible from high latitudes, in summer, in the middle of the night. Above the mesosphere lies the outermost layer of the atmosphere, the thermosphere. The uppermost region of the mesosphere and lowest part of the

thermosphere (between 40 and 620 mi (60 and 1,000 km), approximately) is also known as the ionosphere. Although this region is significant for communications because of its effects on radio waves, and is also the site of the aurorae, it, and the thermosphere in general, have little direct effect on the weather at surface level.

Not finished with it yet however I am really loving this book. It is really easy to follow, the first few chapters took me a while to understand, things like winds and circulation however I did catch on and I have been glued to it since. The print in the book is smaller than most type however it is not as small as some other reviewers have claimed and i have yet to have it "hurt my eyes". I would definitely recommend this book to someone who likes nature and weather.

This book covers a lot of information. The size also makes it easy to carry around. You can learn how to better predict and understand weather for every aspect of your life. From deciding what to wear that day, or when to pack up camp. This book will teach you what you need to know.

This will help me with understanding the weather and its well written

Excellent read to understand Weather Forecasting.

This may very well be the best book ever written on weather forecasting, but the print is so small it gives me a headache to try to read it ... I am able to read only a page or so at a time before eyestrain sets in and I have to put the book away for several hours. Newspapers are set in 9 point type, and this book's text is much smaller, likely 7 point at the largest. The font is also very thin, making it even harder to see. So unless you have extremely good eyesight, I would not recommend spending the money (unless perhaps there is an ebook version that you could download to your computer and enlarge the type yourself). The book itself is on the small size, so it could have easily been printed in a larger page format for easier reading, without adding any more pages. Otherwise, it has lovely colored photos and graphs.

Print is too small to read so I have no idea if the book itself is any good. I don't understand any publisher releasing this with a print this size. It looks like they took a 8"x11" book and shrunk it.

#### EXCELLENT

This is an excellent introduction to weather and weather forecasting. The book explains the conditions which govern weather on a planet-wide basis. It describes the atmosphere and its structure, air movements, effects of atmospheric pressure, temperature and humidity. It deals with global circulation, the effects of winds, the Coriolis effect and numerous other factors which affect the weather. The various cloud types and their effects on weather are well described. The color images of the various cloud types are both informative and pleasant to view. Atmospheric optics including rainbows, haloes, sun and moon pillars are succinctly dealt with. There is a comprehensive description of weather systems including fronts, depressions, tornadoes, cyclones and other phenomena. The account of lightning and thunderstorms includes a listing of precautions to be taken for protection from lightning. The section on weather observation is absorbing. It includes instructions for interpreting weather maps, describes meteorological instruments and weather forecasting. There is one caveat though: the small print, though clear, is a slight strain on aging eyes like mine. This book is recommended to amateur meteorologists, astronomers, weather watchers, hunters, anglers and all outdoors men as well as armchair weather watchers.

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