

ter 8) and after World War II, when rocket technology was developed to carry scientific instruments into space.

Although the aurora borealis is a rare phenomenon to observe in Switzerland, the mechanical engineer Hermann Fritz (1830–1893) at ETH Zurich is now considered the father of modern auroral research and one of the founders of modern geophysics (Schröder 1981, 2008). Inspired by his friend Rudolf Wolf, Director of the Eidgenössische Sternwarte in Zurich at the time, he collected the worldwide available aurorae observations and published a comprehensive catalogue in 1873 and a book in 1881 (Fritz 1873, 1881). He demonstrated the strong connection between number of sunspots and auroral events, and he investigated all kinds of relationships between solar activity and weather parameters, with varying success (Fritz 1893).

Another example of progress in atmospheric physics at the turn of the 19th to the 20th century was the study of atmospheric electricity (Chapter 13) by the physicist Albert Gockel (1860–1927) in Fribourg, with seminal contributions to the distribution and characteristic behaviour of electric charges in the lower atmosphere (Gockel 1908; Lacki 2014). Gockel, a founding member of GMA, used the term “cosmic rays” as early as 1915 in a publication in the *Physikalische Zeitschrift*, although with a question mark, i. e., before Robert Millikan who is generally acknowledged to have coined this term (Völkle 2014). The Austrian researcher Viktor Franz Hess had discovered the cosmic radiation in 1912, which earned him the Nobel Prize in 1936.

3.4 From the Swiss Meteorological Network to the Swiss Meteorological Society

Thanks to the persuasive power of a few famous scientists, and thanks to the support of the Swiss Academy of Sciences, a Meteorological Commission with the professors Heinrich Wild (Berne, 1833–1902), Charles Guillaume Kopp (Neuchâtel, 1822–1891) and Albert Mousson (Zurich, 1805–1890) was formed around 1860. At this time Wild (see Figure 3.5, middle portrait) had already constructed new meteorological instruments (barometer, anemometer, evaporation balance) as well as his original Wild screen. He had also started measurements with the world’s first automatic weather station in Berne, operated with large batteries.