**Chapter 3 Questions for FYS 178 Fall 2020**

Having committed himself to establishing an atmospheric physics, Vilhelm divided the project into four subproblems. List two of the four sub-problems.

In Vilhelm’s and Sandström’s effort to put together a weather publication appealing to the international aerological and meteorological communities, they struggled with devising a standard vertical coordinate. What was the vertical coordinate preferred by Vilhelm and Sandström and what was the vertical coordinate in use at the time?

Give the definition of an *isobaric surface*.

What is the difference between statics and kinematics?

Of horizontal motions and vertical motions, which is ultimately responsible for the formation of clouds and precipitation?

Vilhelm discovered quickly in 1909 that unless he could influence the international aerological community, he would never accomplish what?

When Vilhelm and Sandström began to analyze a great many weather case studies, they found “When we draw our charts for the higher strata, a cyclone always appears over Strassburg.” Was the Strassburg cyclone real? If not, what caused it to consistently show up on their charts?

When Vilhelm resolved to travel around Europe and try convincing aerologists of the need to do two things related to making observations. Name the two things.

What year marked a turning point in the development of aerology?

The head of the Spanish airship program stated at the sixth meeting of the International Commission for Scientific Aeronautics that “without a continuous aerological service, a safe airship service is…” what?

Where did the sixth meeting of the International Commission for Scientific Aeronautics take place?

Did the Commission for Scientific Aeronautics at their sixth meeting wholeheartedly embrace Vilhelm’s two proposals for observations standards? If not, give a reason why they did not.

Vilhelm gave the opening lecture at the inaugural meeting of what Norwegion organization in 1909?

The first airplane flight took place in Norway in what year?

After leaving the 1909 congress, Vilhelm followed a four-pronged strategy for getting his reforms instituted regarding observations standards. List two of the four strategies.

In 1910, Vilhelm traveled to London and Berlin giving presentations to leading aerologists and meteorologists. His lectures were not simply for presenting his research, but also served what purpose?

Vilhelm’s second volume *Kinematics* was published in what year?

What prominent German aerologist, who also opposed Vihelm’s reform idea of absolute units in observations, asked if Vilhelm could only help “get things going so that something is accomplished” in his heavily funded Lindenberg observatory?

What did Vilhelm feel had been essential for achieving the major goal of his trip to Lindenberg and Strassburg in 1911?

When the International Commission for Scientific Aeronautics convened in Austria in 1912 they accepted Vilhelm’s proposal for absolute units under one condition. What was the condition?

Which of Vihelm’s proposals for standard units was the cause of considerable controversy at the time that the International Meteorological Committee in Rome convened in 1913?