Syllabus GEOF 345
Satellite Remote Sensing in Meteorology and Oceanography

Meteorology part

Satellite Meteorology - An introduction
Stanley Q Kidder / Thomas H. Vonder Haar

Chapter 2 Orbits and navigation
2.4 Meteorlogical satellite orbits
2.4.1 & 2.4.2 **26 - 29**

Chapter 3 Figs. 3.11 - 3.14 **66 - 68**

Chapter 4 Meteorological Satellite Instrumentation
4.1. - 4.1.3 **87 – 105**
4.3.2 – 4.3.5 **138 – 141**

Chapter 6 Temperature and Trace Gases
6.1 – 6.6 -6.4 **183 – 225**

Chapter 7 Winds
7.1 – 7.3.2 **233 - 250**

Chapter 8 Clouds and aerosols
8.1 – 8.2.6 **259 - 289**
8.5 **298 - 301**

Chapter 9 Precipitation
9.3 **345 - 350**

Atmospheric Remote Sensing by Microwave Radiometry
Michael A. Janssen

Chapter 1 An introduction to the passive microwave remote sensing of the atmospheres
1.1 – 1.3 **1 – 13**

Chapter 3 Microwave radiative transfer in hydrometeors
3.1 – 3.2 **91 – 95**
3.2.2 **97 - 98**

Chapter 6 Remote sensing of the atmosphere from satellites using microwave radiometry
6.1 – 6.5 + Appendix 6A **259 – 319**

Oceanography Part

Measuring the Oceans from Space

The principles and methods of satellite oceanography

Ian S. Robinson

Chapter 2 **Sensors for observing the ocean**

Chapter 3 **Space and time scales in satellite oceanography**

Chapter 6 **Ocean color remote sensing**

Chapter 7 **Infrared measurements of the sea surface temperature**

Chapter 8 **Microwave radiometry**

Chapter 9* }
Chapter 10* } **Radars, sea surface roughness, sea level, currents**
Chapter 11* }

*** Selected sections from these chapters**