

Chapter and Section Outline

Part 1: Understanding Imagery of Volcanoes

Preface (*The rationale behind this book, a brief history of its purpose and inception.*):
Dean, Dehn

Ch 1. Complexities of Observing Remote Volcanoes

Author: Ken Dean (UAF)

Chapter Editor: Jon Dehn

Ch 2. Satellite Systems and Interactions

Lead Authors: M. Watson (MTU)

Chapter Editor: K. Dean

Ch 3. Thermal Anomalies at Volcanoes

Lead Authors: J. Dehn (UAF)

Chapter Editor: K. Dean

Ch 4. Morphology and Chemistry of Volcanic Deposits

Lead Author: M. Ramsey (UPitt)

Chapter Editor: Jon Dehn

Ch 5. Volcanic Ash Clouds

Lead Author: Dave Schneider (USGS)

Chapter Editor: Jon Dehn

Ch 6. Gas Emissions from Volcanoes

Lead Author: V. Realmuto (JPL)

Chapter Editor: K. Dean

Ch 7. Volcanic Cloud Dispersion Models

Lead Author: R. Peterson (UAF)

Chapter Editor: K. Dean

Ch 8. Radar Imagery of Volcano Deformation and Morphology

Lead Author: Z. Lu (USGS)

Chapter Editor: Jon Dehn

Ch 9. Real Time Operational Satellite Monitoring

Lead Author: K. Dean (UAF)

Chapter Editor: Jon Dehn

Ch 10. Manned Missions Capturing Volcanic Activity

Lead author: P. Mouginiis-Mark (UH)

Chapter Editor: K. Dean

Ch 11 Regional and Global Impacts of Volcanism

Lead author: L. Flynn (UH)

Chapter Editor: Jon Dehn

Part 2: Atlas of Imagery from the North Pacific

Each author will be given credit for the imagery, and a citable reference, since this too represents considerable effort. Authors and others are invited submit images to this section. The authors for each section will help coordinate the individual entries.

Preface:

Dean, Dehn

I. Thermal Imagery (Dean, Dehn, Harris, Ramsey, Flynn)	
A. Thermal Anomalies (Dehn & Dean)	<u>Total Images/Entries</u>
1. Lava flows	(15 Total images)
2. Lava domes	(25 total images)
3. Spatter Fields	(4 total images)
4. Geothermal Lakes	(6 total images)
5. Fumaroles	(2 total images)
B. Eruption Plumes (Dean, Elrod)	
1. Plinian Eruptions	(35 total images)
2. Strombolian Eruptions	(7 total images)
C. Phreatic Eruptions (Dehn)	
1. Thermal anomalies	(6 total images)
2. Steam Plumes (2 total images)	
D. Non-volcanic Anomalies (Dehn & Dean)	(9 total images)
1. Fires: Prindle, Wrangle, Kenai, Oregon	(3 images)
2. Reflection: Cleveland, Kliuchevskoi, Katmai	(3 images)
3. Orographic Clouds: Kliuchevskoi, Vsevidof	(3 images)
II. Radar Imagery (Lu, Freymueller, Price, Mann, Izbekov, & Dean)	
A. Radar Images	
1. Roughness, surface type and terrain	(3 total images)
2. Seasonal Effects	(4 total images)
3. Monitoring Topographic Changes	(10 total images)
4. Digital Elevation Models	(4 total images)
B. Interferometry (Lu, Freymueller & Mann)	(12 total entries)
1. Okmok Volcano	
2. Trident Volcano	
3. Westdahl Volcano	
4. Peulik	
5. Augustine (<i>pyroclastic flow settling</i>)	
6. - 9. More from Lu...(1 page with 2 images each)	
III. Space Shuttle Data and Imagery (Mouginis-Mark, Evans, Rowland)	
A. SIRC	(4 images)
B. SRMM	(4 images)
C. Photos	(5 images)
IV. Regional and Global Impact of Eruptions (Rothery, Dean, Wohletz?)	
A. Regional Effects	
1. Lavas (Etna, Hawaii, Nyiragongo)	(5 images)
2. Ash Fall (Spurr, Pinnatubo, Usu)	(5 images)
3. Lahars (Pinnatubo, Ruiz, Mayon)	(5 images)
B. Global Effects	
4. Ash Fall (St. Helens, Pinnatubo, Cleveland, Spurr)	(5 images)
5. SO ₂ (El Chichon, Pinnatubo, Kilauea)	(5 images)
6. Climate Change (Pinnatubo, model results)	(5 images)

TOTAL PRELIMINARY NUMBER OF IMAGES/ENTRIES: 185