CHAPTER 4: GLOBAL CLIMATES

FLOODS, DROUGHTS, AND FAMINES

I. GLOBAL PROCESSES DETERMINE WEATHER AND CLIMATE (88)

Weather -

Climate –

A. Earth’s Atmosphere -

Troposphere –

Stratosphere –

|  |  |
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| Tropospheric Ozone | Sratospheric Ozone |

B. Unequal Heating of Earth

Albedo –

C. Atmospheric Convection Currents

1. Properties of Air –

Saturation Point –

Adiabatic Cooling –

Adiabatic Heating –

Latent Heat Release –

2. Formation of Convection Currents

Hadley Cells –

Intertropical Convergence Zone (ITCZ) –

Polar Cells –

D. Earth’s Rotation and the Coriolis Effect –

Coriolis Effect –

E. Earth’s Tilt and the Seasons –

F. Ocean Currents

1. Gyres –

2. Upwelling –

3. Thermohaline Circulation –

4. Heat Transport –

5. El-Nino Southern Oscillation –

G. Rain Shadows