

**El Niño / La Niña**

Nov '97

Feb '99

-18 -14 -10 -6 -2 2 6 10 14 cm

**Why it occurs**

**What it is.**

**How it effects global climate**

---

---

---

---

---

---

---

---

Jet Streams

Trade Winds

**El Nino**

Recorded since 1525,  
geological evidence suggests it has occurred for 13,000 years,  
scientifically it has been studied for about 50 years

---

---

---

---

---

---

---

---

**10 NOV 97**

JPL

NASA CRES

**The last major El Nino Event**

*On my 40<sup>th</sup> Birthday  
12/7/1997  
it rained 8 inches in  
Laguna Beach in 60 hours*

---

---

---

---

---

---

---

---

# PREDICTING EL NINO

---

---

---

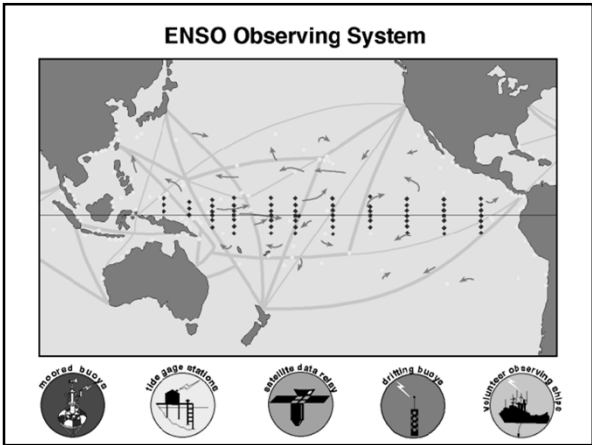
---

---

---

---

---



---

---

---

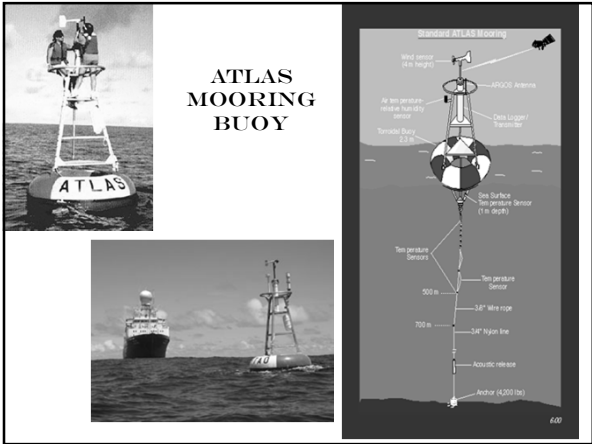
---

---

---

---

---



---

---

---

---

---

---

---

---




---

---

---

---

---

---

---

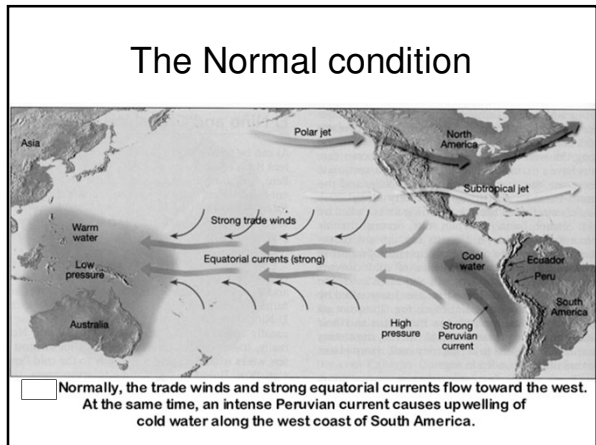
---

---

---

---

---




---

---

---

---

---

---

---

---

---

---

---

---

### During the Normal Conditions

☀ Warm water pools in Indonesia, causes Monsoon's

---

---

---

---

---

---

---

---

---

---

---

---

### In El Nino

- ☛ Trade winds weaken
- ☛ Monsoon winds strengthen

---

---

---

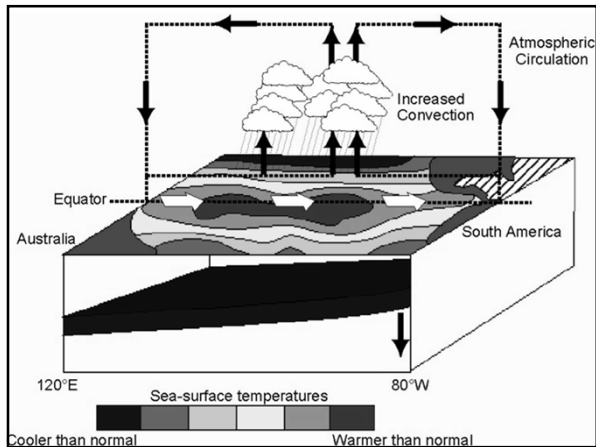
---

---

---

---

---



---

---

---

---

---

---

---

---

### Facts about the 1997-1998 El Nino

- ☛ Amount of energy put into atmosphere by the 1997-98 El Nino was more than the amount of energy consumed by the U.S. in one year from burning fossil fuels
- ☛ Equal to more than one million Hiroshima bombs
- ☛ The sea level height in the eastern equatorial pacific was more than 12cm higher than normal, in an area twice the size of the U.S.
- ☛ In California the sea lion pup mortality rose from 25% to 70%

---

---

---

---

---

---

---

---