## Investigating Changing Climate Patterns - Activity Sheet Part 2 – Low Air Pressure

## **Student Activity**

## Continue from the last activity sheet

11. Describe the distribution of cloud in the satellite image.



A. B.









- 12. Describe the storm tracks for Hurricanes; Harvey; Irma & Maria. Use an atlas to help you
- 13. Even though there were three such strong hurricanes close together; why might it be fair to say the region had a near miss?
- 14. Use the information in the three tables to rank the three hurricanes using:
  - a. Wind speed
  - b. Fatalities
  - c. Cost
  - d. Air Pressure

15. In your opinion which was the worst disaster?A. Explain your answer.

Formed	A
Dissipated	S
Highest	1
winds	k
Lowest	9
pressure	
Fatalities	7
Damage	В
	\$
	а

Formed	Α
Dissipated	Se
Highest	1-
winds	
Lowest	9
pressure	
Fatalities	13
Damage	A

Formed	S
Dissipated	2
Highest	1
winds	k
Lowest	9
pressure	
Fatalities	8
Damage	^

# Hurricane Harvey August 17, 2017 September 3, 2017 --minute sustained - 130 mph (215 cm/h) 938 mbar

## 7 confirmed

Between \$70 billion USD (lowest) to 5180 billion USD (highest) – almost Ill in the USA.

#### Hurricane Irma

ugust 30, 2017 eptember 16, 2017

-minute sustained - 185 mph (295 km/h)

14 mbar

32 confirmed

t least \$63 billion USD.

### Hurricane Maria

September 16, 2017 October 3, 2017

L-minute sustained - 175 mph (280 km/h)

08 mbar

31 confirmed

\$51.2 billion USD

## **Investigating Changing Climate Patterns - Activity Sheet Part 2 – Low Air Pressure**

**16**. Using the before and after photographs describe:

A. The Virgin Islands



B. Puerto Rico at night.



17. What does the word pressure mean? Use the sketch to help you to explain it.



10,000 metres.

millibars?

- A. At 0 metres B. At 4,000 metres C. At 8,000 metres.

- **18.** Pressure is measured using a unit of a pascal (Pa) How much weight pushing down on a square metre would cause a pressure of a pascal?
  - A. An adult male African elephant
  - B. A bicycle
  - C. An average year 5 pupil
  - D. An apple
- 19. The more normal unit for air pressure is a unit called a millibar.
  - A. How many Pascals make up a bar?
    - i. 100 ii. 10 iii. 1,000 iv. 10,000 v. 100,000
  - B. How many millibars make up a bar?
    - i. 10 ii. 100 iii. 1,000 iv. 10.000 v. 100,000



- - - A. How can we see this on a satellite image? B. What kind of climate does this cause? C. What kind of ecosystem?

## Conclusions

23. Describe three ways that air pressure is important.

- Α.
- Β.
- C.

#### 20. What is normal atmospheric air pressure in

21. Use the graph below to describe what happens to air pressure as a person climbs from sea level to

- 22. Why is there always a band of low air pressure
  - close to the Equator?