



Applied Remote Sensing Training (ARSET) Program

NASA's "Black Marble" Night Lights Data

Homework Questions

Question 1

When was the first day of outage detected? (You can hover your mouse on the plot to see the date (X-axis) on the left-bottom of the plot.)

Answers: (bold correct)

- a. **2017-09-26**
- b. 2017-09-06
- c. 2017-09-11
- d. 2017-10-09

Question 2

What was the NTL Radiance (approximately) on the first day of outage that was detected ? (You can hover your mouse on the plot to see the NTL Radiance (Y-axis) on the left-bottom of the plot.)

Answers: (bold correct)

- a. 9.4
- b. 33.1
- c. **3.4**
- d. 4.6

Question 3

Approximately what % of reduction in lights was associated with the outage in Caguas?

Answers: (bold correct)

- a. 65%
- b. 45%
- c. 95%**
- d. 25%

Question 4

Is there any evidence of recovery?

Answers: (bold correct)

- a. Yes
- b. No**

Question 5

In the week of 09/22/17, Caguas shows a flat night lights signal for VNP46A2. What do flat sections of the time series indicate? How could you check your assumptions?

Short answer text:

Feedback:

Cloud-contaminated, gap filled pixels, Check the quality flags.

Question 6

If you used monthly composites of night lights for September and October instead of the daily time series, how would this have changed the results for question 3 (Approximately what % of reduction in lights was associated with the outage in Caguas)?

Answers: (bold correct)

- a. 60%**
- b. 75%
- c. 95%

d. 45%