

GOES-R / GOES-16¹

Satellite and Weather Extension and Exploration Activities

In these activities you will be exploring satellites and weather.

Activity 4

Please write your answers on a separate piece of paper.

Activity 4.1 Image Bands

Use the [Simulated GOES-R Image Bands](#) link to compare and contrast the 16 image bands GOES-16 will be capable of using. (You may search elsewhere too to help you complete this activity.) [Image Bands](#)

1. Make a claim as to why it will be useful for GOES-R to have 16 bands. (Claim: A conclusion that answers the original question.)
2. Provide evidence to support your claim for your answer to number one. (Evidence: Scientific data that supports the claim. The data needs to be appropriate and sufficient to support the claim.)
3. Write your reasoning based on your claim and evidence, you may include information you learned from Activities 1-3, to explain why it is so useful for GOES-R to have 16 imaging bands. (Reasoning: A justification that links the claim and evidence. It shows why the data counts as evidence.)

Activity 4.2 Anticyclone

Use the [Hurricane Sandy](#) webapp and [AMS Glossary](#) link to help complete the following:

1. Make the cyclone into an anticyclone. Explain how you got the hurricane to appear to rotate the other way.
2. Compare and contrast a cyclone and an anticyclone.

Activity 4.3 CIMSS Satellite WebApps

Use the [CIMSS Image Resolution WebApp](#) link to complete the following:

1. Explore different weather phenomena via the various case studies available available in the Image Resolution WebApp.
2. Explain what you learned from varying spatial and temporal resolutions of at least two different case studies.
3. Explain how improvements in resolution may benefit society when GOES-R becomes operational in 2017.

Additional Activities:

Explore more CIMSS [Weather and Climate WebApps](#) to learn about satellites meteorology, weather and climate.

¹ GOES-R was renamed GOES-16 when it reached operational orbit.