# Put on your cosmic visors.

You are an alien from another world. You have alien eyes.
What do you notice about your vision?

Your job is to visit planet RGB and report  back to your commander.

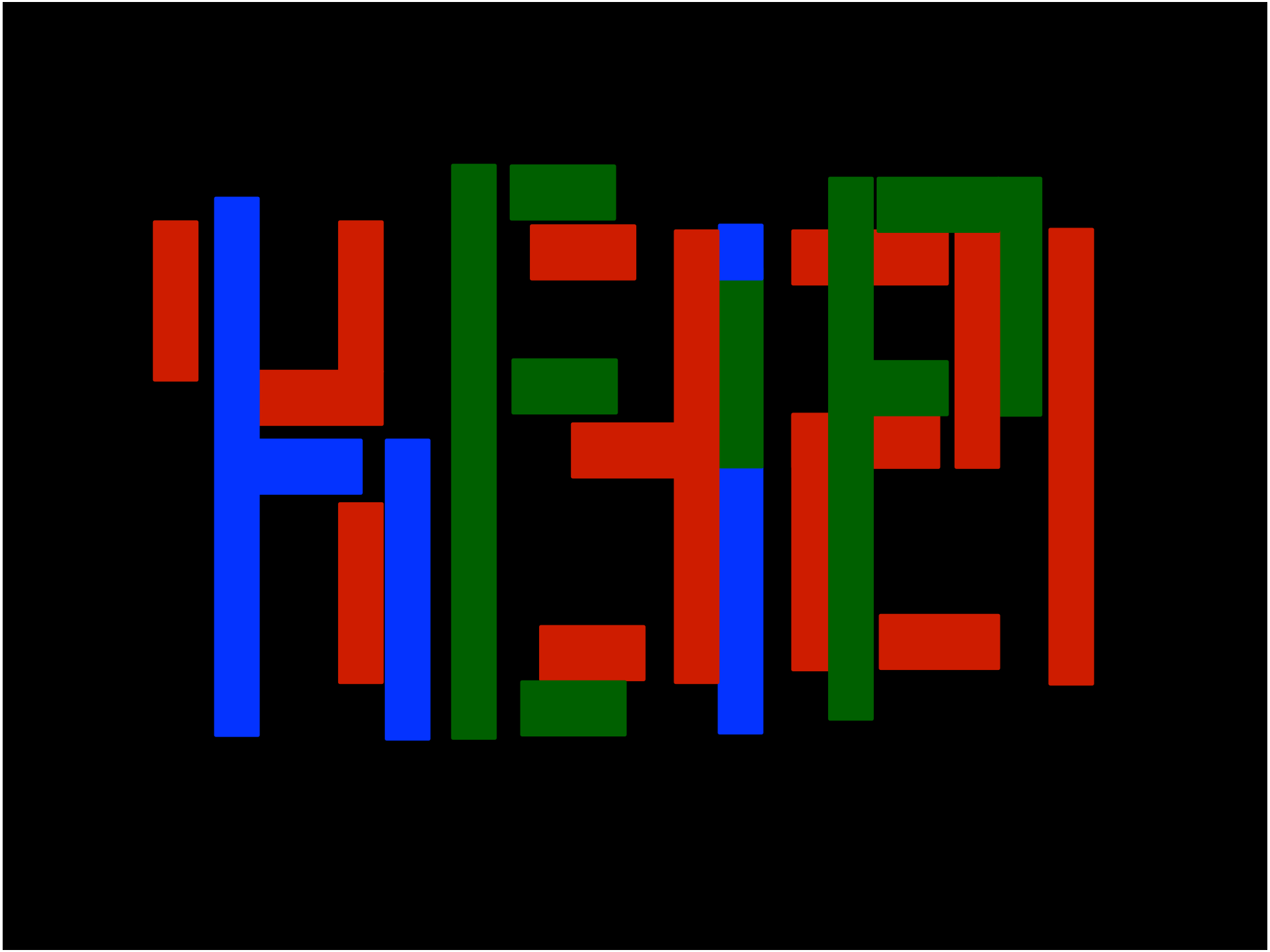
You have arrived.

Your commander will ask you to report what you see. Wait for instructions.

Click the mouse to look out of the window of your space ship.

Ok Alien.  Now you have received a message from Planet RGB.

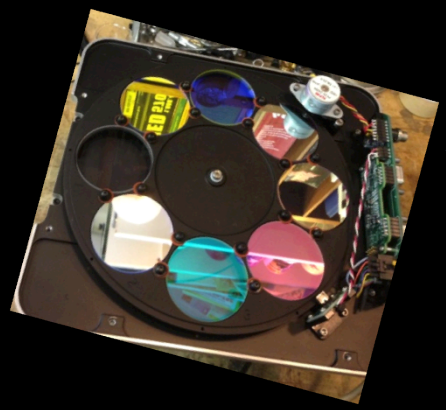
Can you decode it?



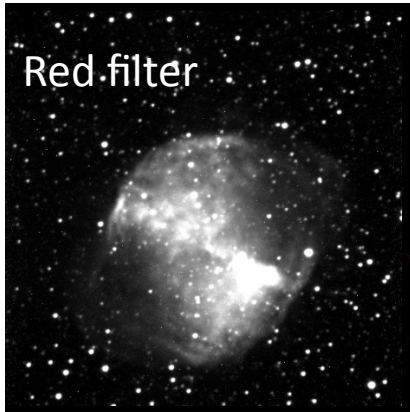
# Astronomers use filters too!

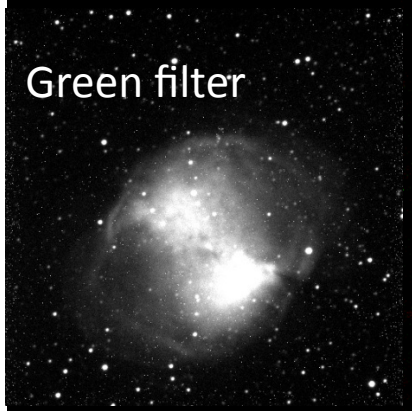
From the Faulkes Telescope Project:

Filter wheel and CCD animation



# M 27, Dumbbell Nebula



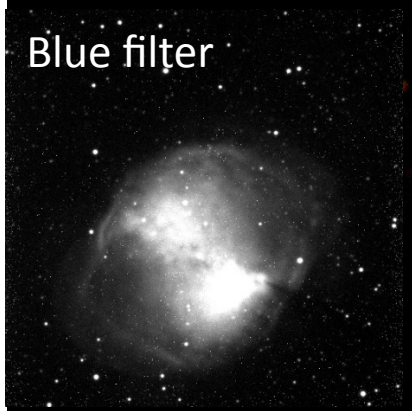
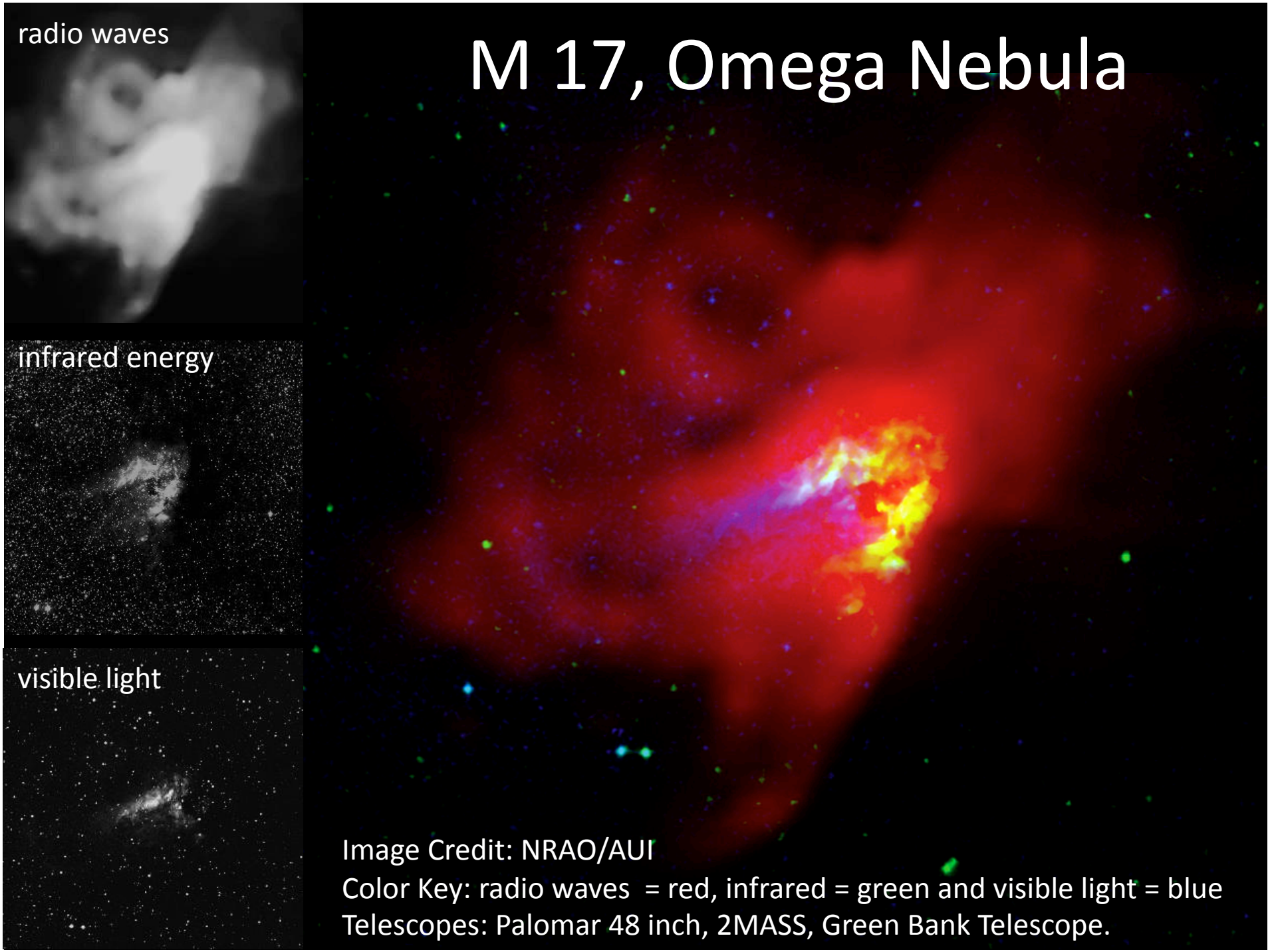




Image Credit: Ken Budill. This image combines 3 pictures: one through a red filter, one through a green filter, and one through a blue filter.
Color Key: red=red, green=green, blue=blue
Telescope: Yerkes 41-inch

# Representational Images

Astronomers don't just combine images taken through red, green and blue filters. They use narrow-band filters too. They even combine images from very different telescopes like x-ray telescopes and radio telescopes!


radio waves
infrared energy
visible light
M 17, Omega Nebula
Image Credit: NRAO/AUI
Color Key: radio waves = red, infrared = green and visible light = blue
Telescopes: Palomar 48 inch, 2MASS, Green Bank Telescope.

# M 17, Omega Nebula

Image Credit:
Josh Thum

The filters used here were infrared, red and green.

Color Key:

- infrared = red
- red = green
- green = blue

Telescope:
Yerkes 41-inch

# NGC 2818, Planetary Nebula

Image Credit: Hubble Space Telescope. Narrow band filters for nitrogen, hydrogen and oxygen were used and then combined into this representational color image.
Color Key: nitrogen = red, hydrogen = green and oxygen = blue.
Telescopes: Hubble Space Telescope

# M 44, Crab Nebula

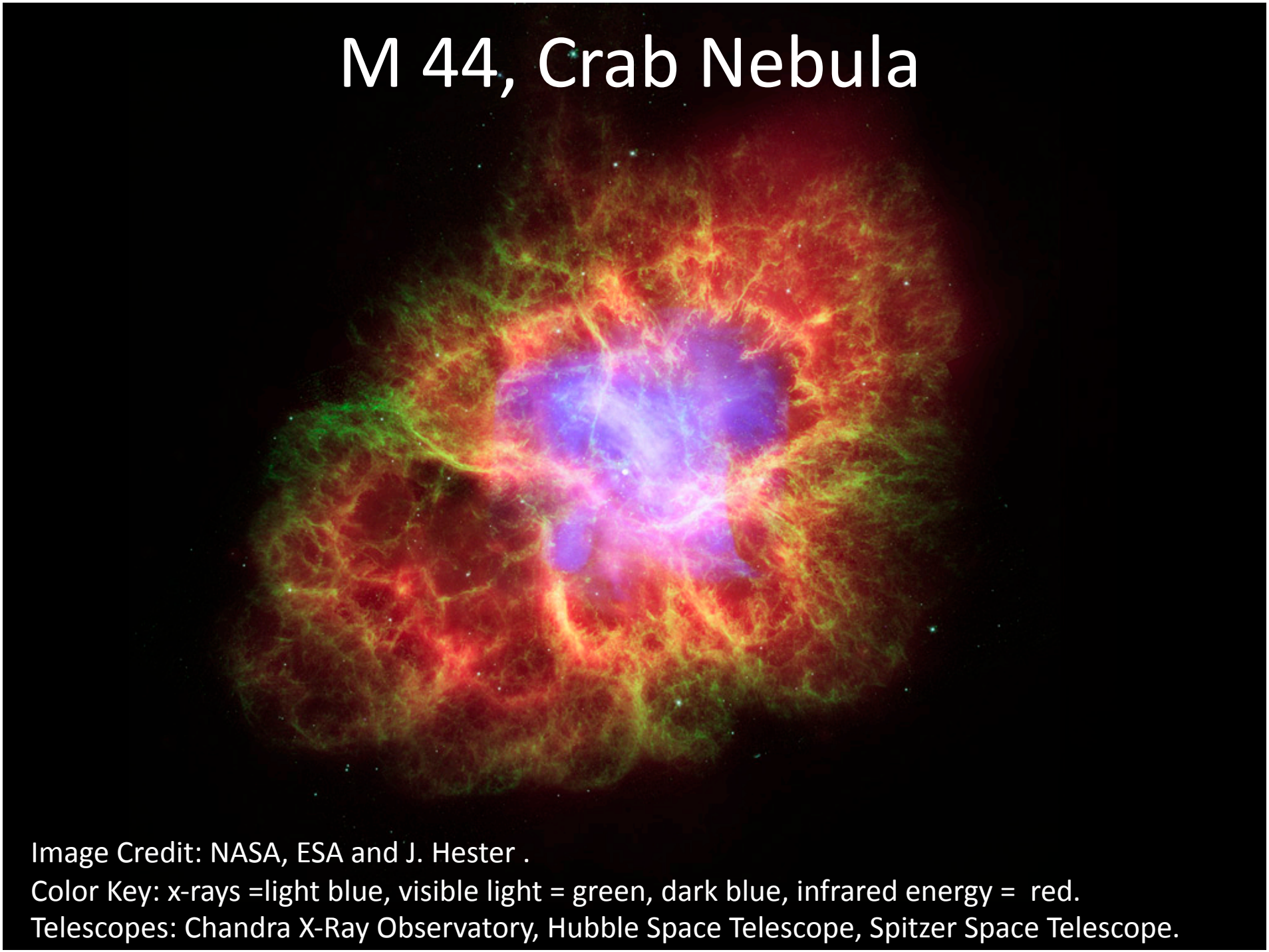


Image Credit: NASA, ESA and J. Hester .
Color Key: x-rays =light blue, visible light = green, dark blue, infrared energy = red.
Telescopes: Chandra X-Ray Observatory, Hubble Space Telescope, Spitzer Space Telescope.

# M 83, Southern Pinwheel Galaxy

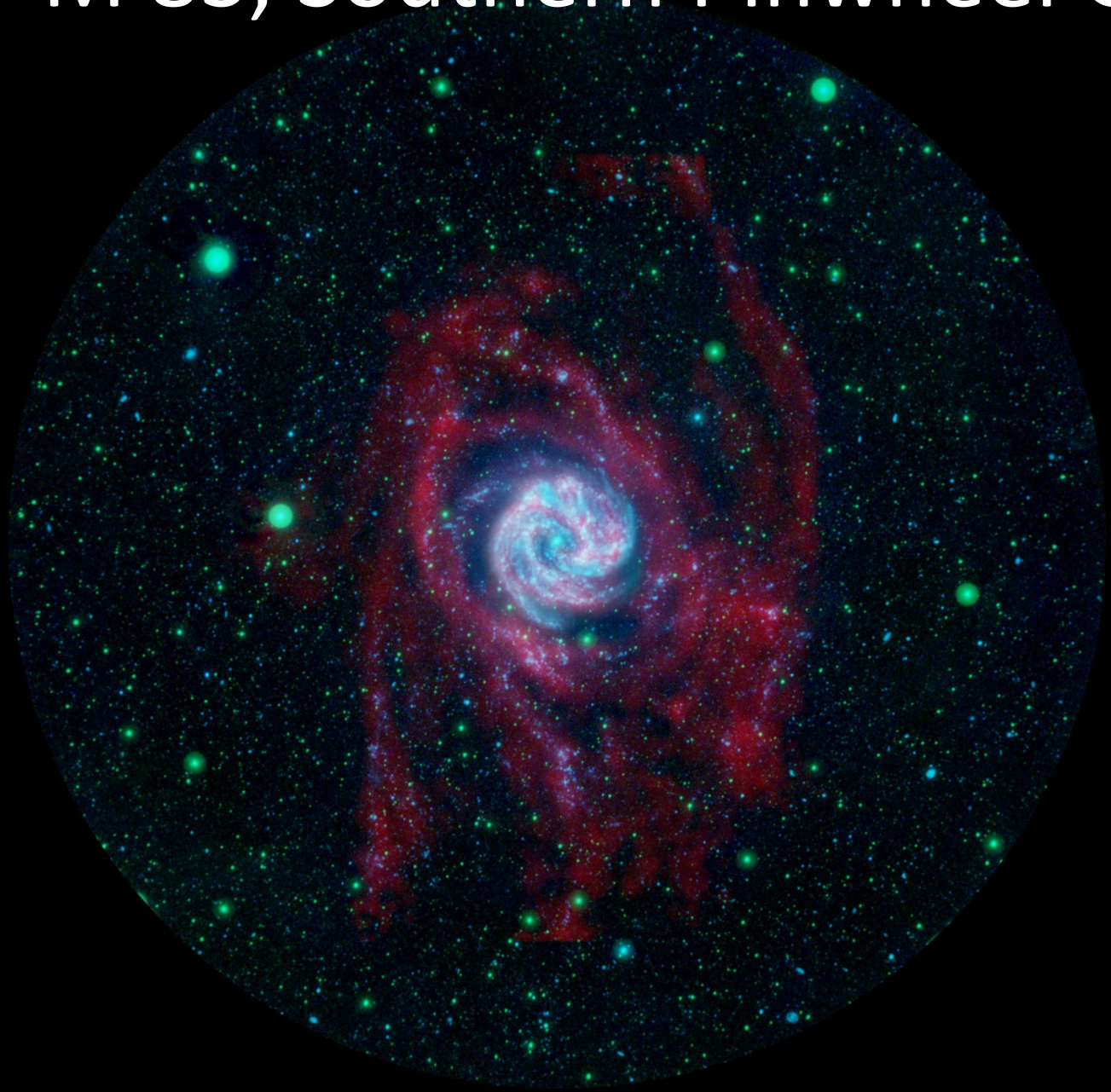


Image Credit:
NASA/NRAO/MPIA

Color Key:

- radio waves = red.
- near-ultraviolet light = green.
- far-ultraviolet light = blue.

Telescopes:
GALEX (Galaxy Evolution Explorer), Very Large Array