

Creating a New Airmass RGB for NWS Forecasters with Color Vision Deficiency

What is Color Vision Deficiency (CVD)?

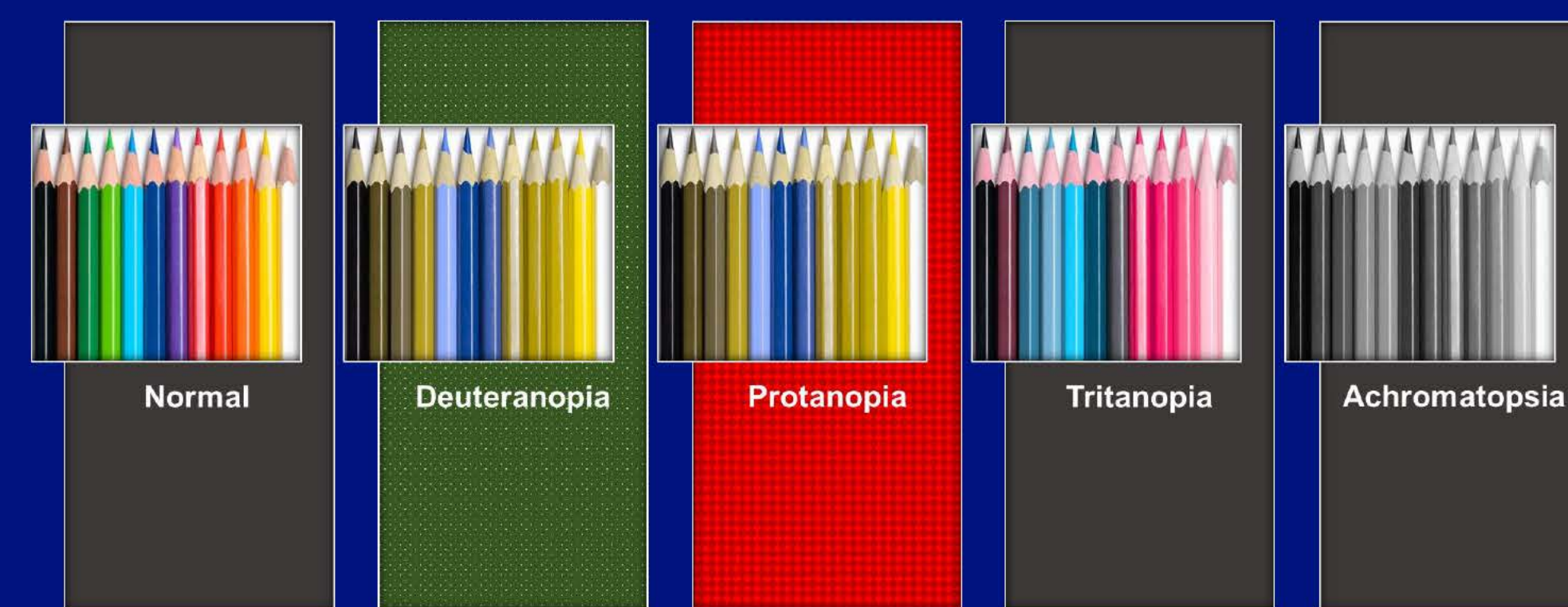
The inability to distinguish certain shades of color

X-linked recessive disorder

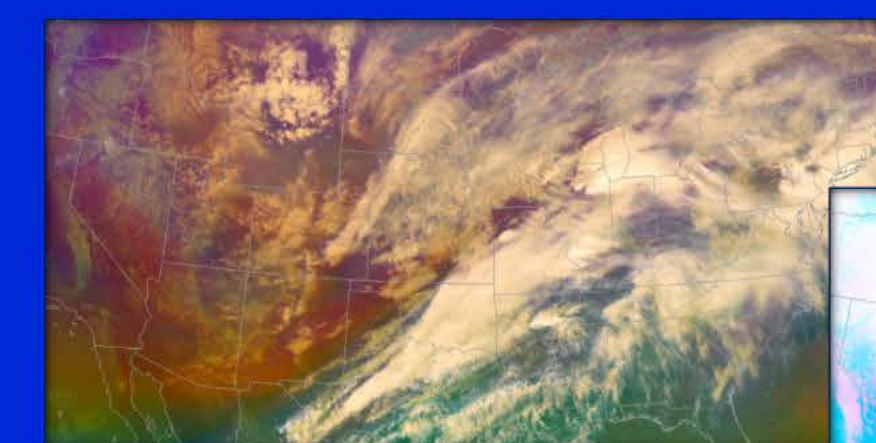
8% men with Northern European ancestry

0.5% women with Northern European ancestry

Types of (CVD)



Difficult to Interpret RGBs

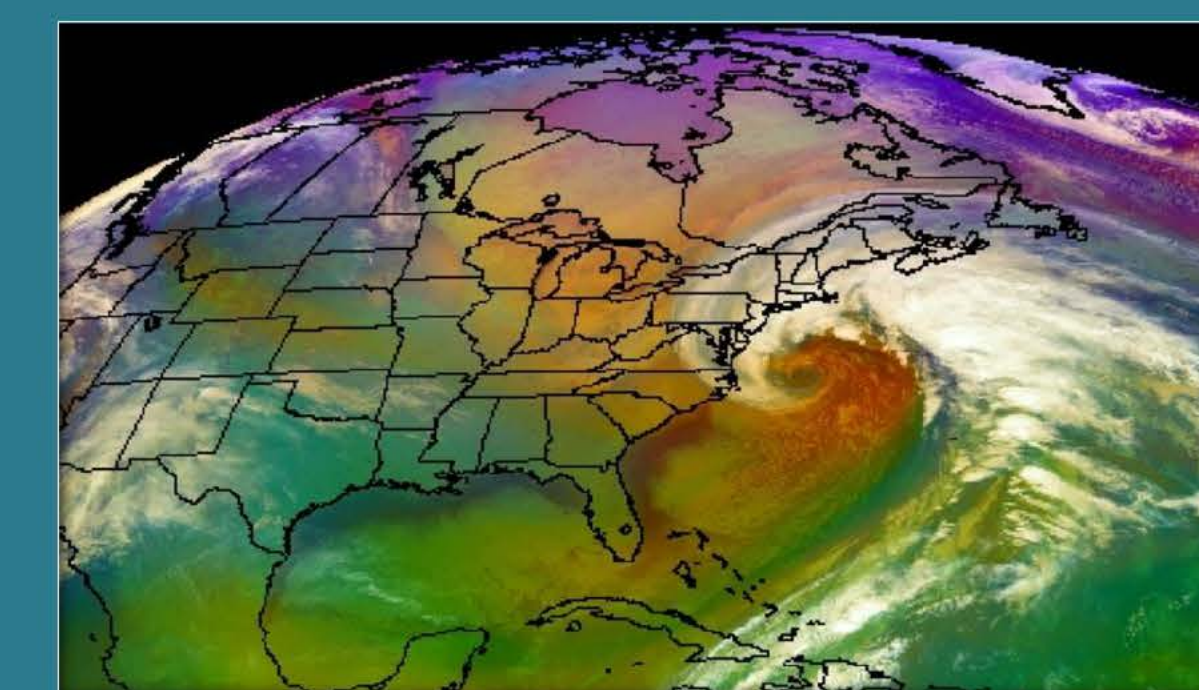


Airmass RGB

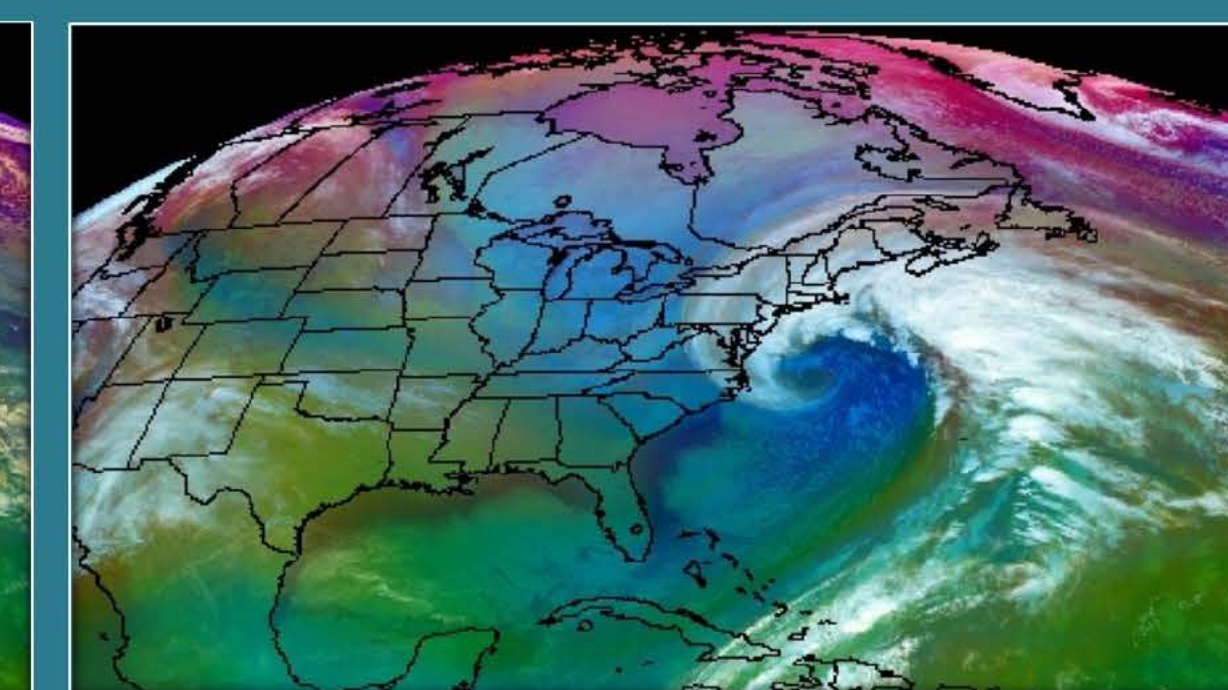


Simple Water Vapor RGB

Creating a New Airmass RGB

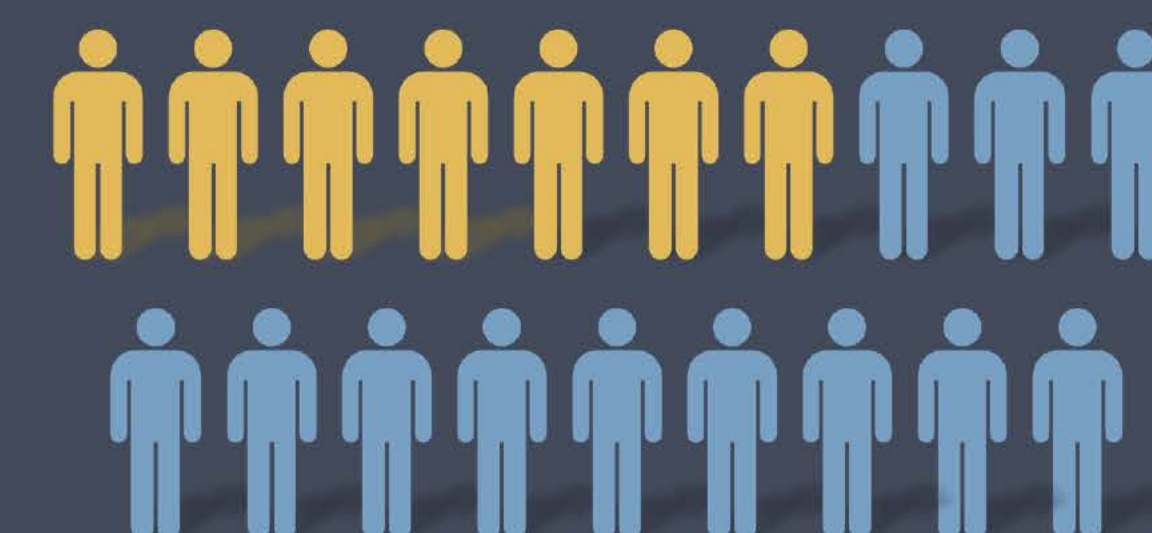


Airmass RGB



New Airmass RGB

Survey Results from NWS Employees with Deuteranopia or Protanopia



37% (7) of 19 respondents felt that the New Airmass RGB was slightly easier to interpret



42% (8) of 19 respondents felt that the New Airmass RGB was moderately easier to interpret



21% (4) of 19 respondents felt that the New Airmass RGB was significantly easier to interpret

Future Work



Contact Information

katie.crandall@noaa.gov

Follow me on Twitter

References

Google Forms, cited 2018: [Available online <https://docs.google.com/forms>]

National Eye Institute, cited 2018: Facts About Color Blindness. [Available online https://nei.nih.gov/health/color_blindness/facts_about]

NOAA Virtual Lab, cited 2018: Color Vision Deficiency Group. [Available online <https://vlab.ncep.noaa.gov/group/color-vision-deficiency-group>]

Royal National Institute of Blind People, cited 2018: Colour Vision Deficiency. [Available online <https://www.rnib.org.uk/nb-online/colour-vision-deficiency>]