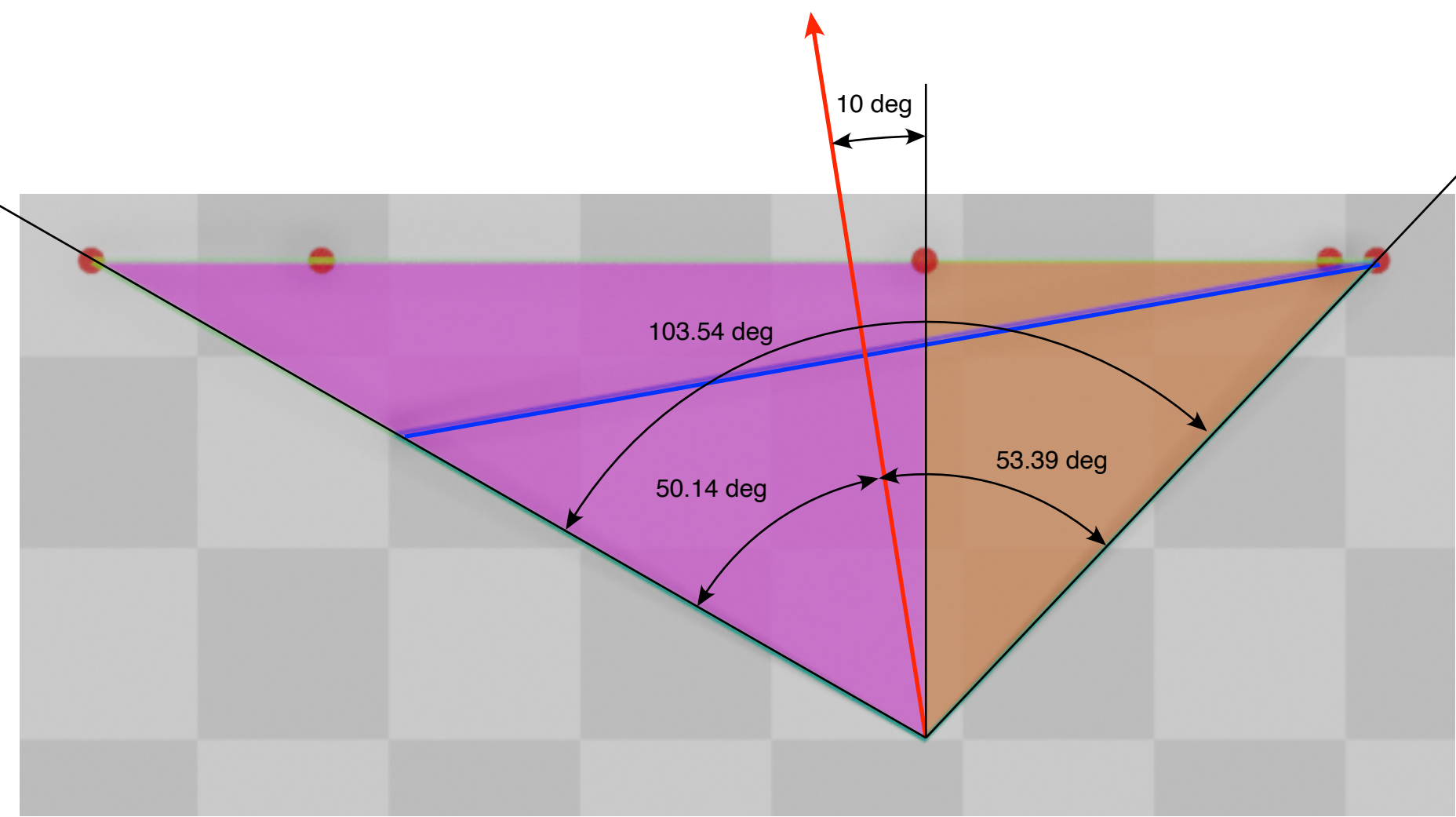
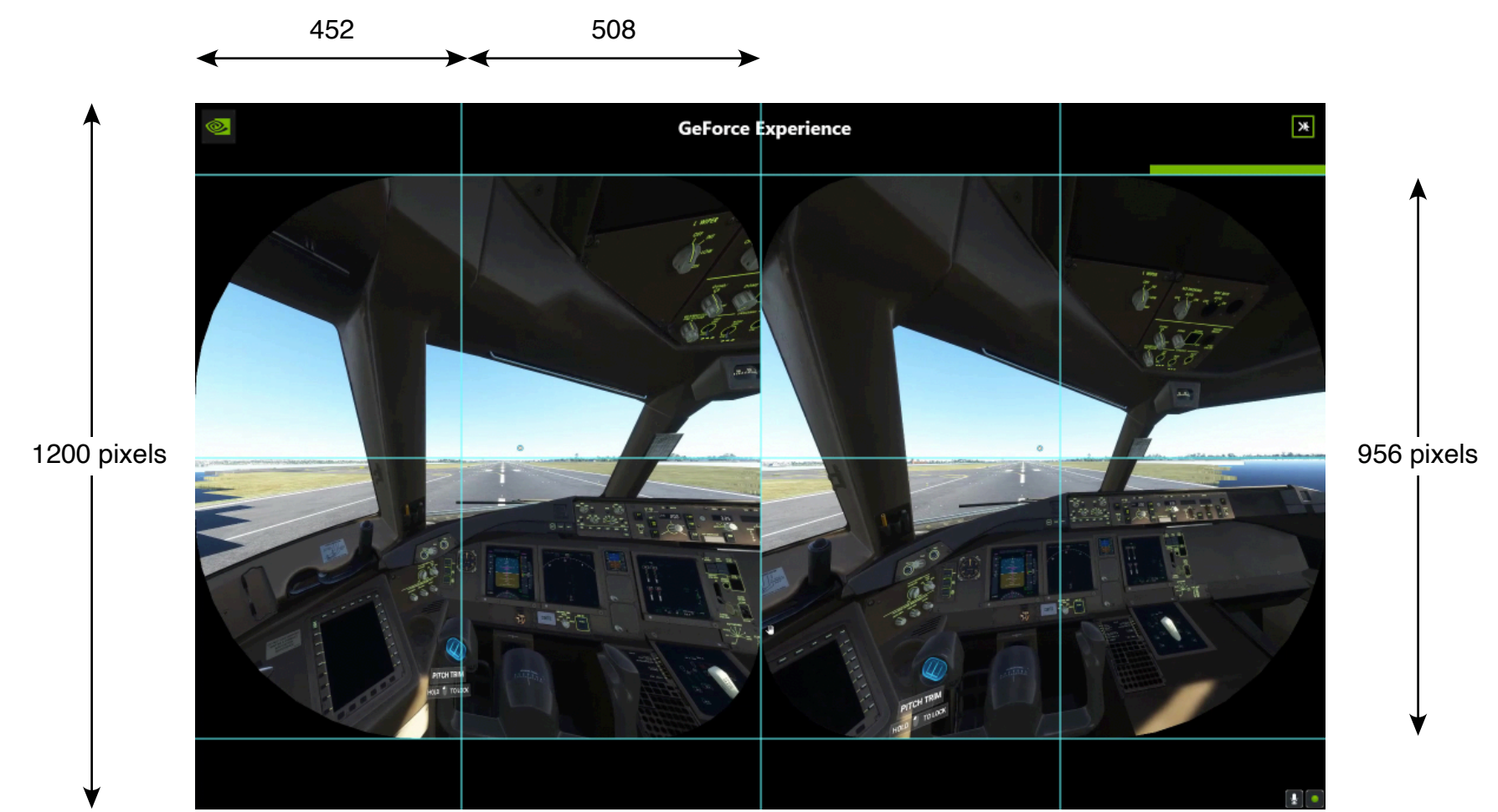


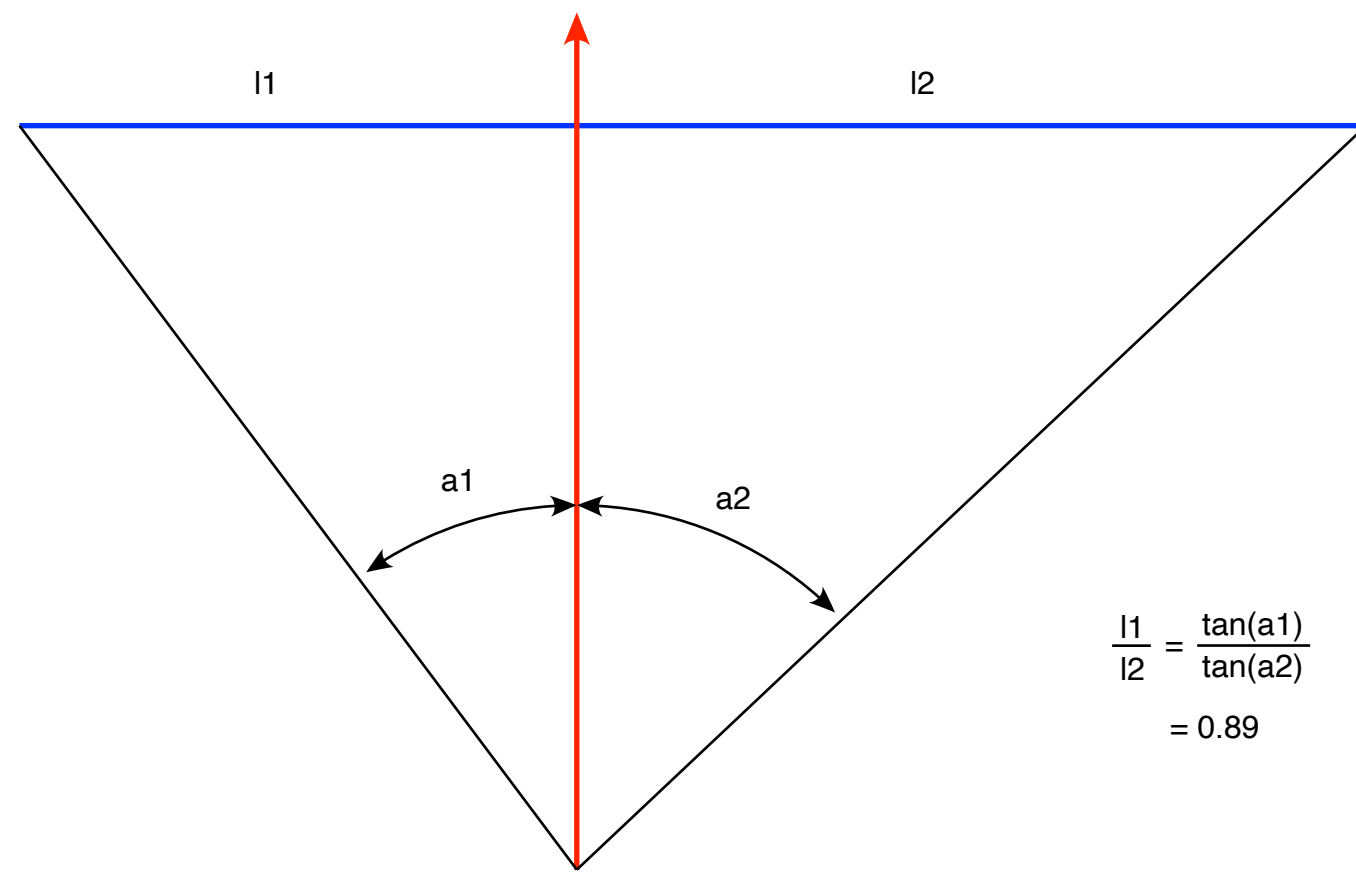
# Geometry



# Pipeline

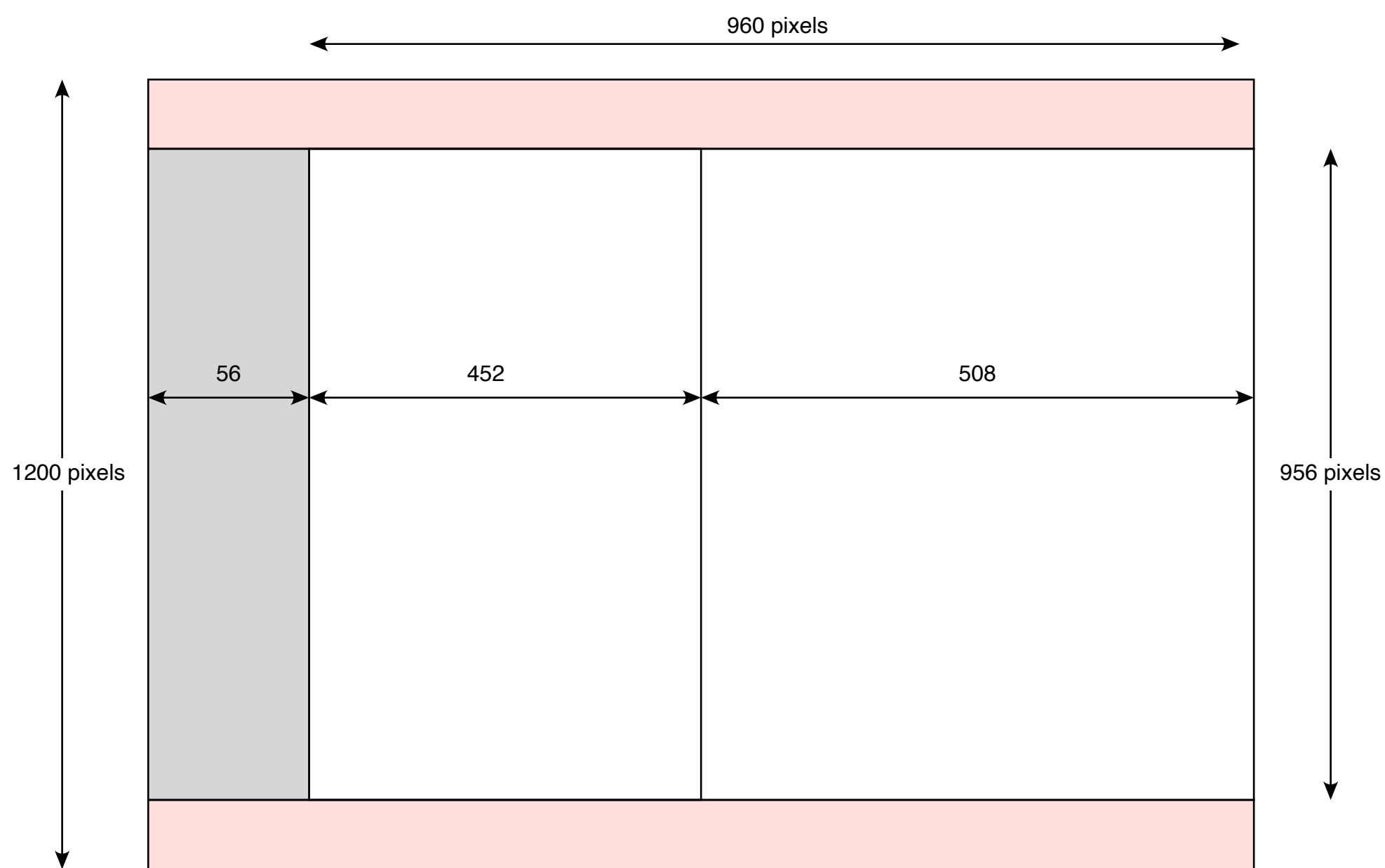


Determine the position on the image of the camera center



$$\frac{l1}{l2} = \frac{\tan(a1)}{\tan(a2)} = 0.89$$

Crop and pad to make symmetric



New FOV of padded symmetric view is  $2 * 53.39 = 106.78$  deg

$$vfov = 2 \operatorname{atan}\left[\frac{\text{height} \tan(\text{hfov}/2)}{\text{width}}\right]$$

so

$$vfov \text{ should be } 2 \operatorname{atan}\left(\frac{956 \tan(106.78/2)}{1016}\right) = 103.41 \text{ degrees}$$

Left

Right

Crop left and right view



Pad to symmetric frustum



Map to half equirectangular including yaw rotation.



Combine to top and bottom frame