This is a chart, from Flex Projector, of the distribution of angular distortion in this projection: This projection is...
Applying asymmetry to the projection above with short pole lines and a stretch factor of 1.5, using the sine of 75 degrees for the Southern hemisphere, I get: The pointed corners at the bottom are a problem, but of course one could just trim

more like a cylindrical equal-area projection, the first projection is shrunk to 60% of its size. This was inspired by

the Wagner VII projection, longitude is divided by three before using the equatorial case of the Lambert Azimuthal Equal-Area...