GAW:GAMMA AIR WATCH

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The Cherenkov imaging techinique is the most effective tool to detect and observe gamma-ray cosmic emission above 100 GeV. We propose a Cherenkov telescope, GAW (Gamma Air Watch), designed for observations of Gamma-ray sources above 200 GeV. GAW will be a Cherenkov telescope with 3 meters Fresnel lens and f#/$\sim$1.9. The telescope will be equipped at the focal plane with an array of 300 photomultipliers. The pixel size at the focal plane will be 2 arcmin for a total FOW of 5.2 degrees. GAW represents an alternative to the next planned Cherenkov telescope arrays (HESS, CANGOROO III, VERITAS) beeing different for its optical system (Frenels lens instead of reflectors in Davies-Cotton configuration) and much smaller pixel size (2 arcmin instead of 10 arcmin). Thanks to reduced pixel size, the photomultipliers will operate in single photoelectron count mode instead of charge integration allowing a much smaller photoelectron threshold for the hadronic background rejection technique.