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VERITAS and Fermi-LAT observations of TeV gamma-ray sources from the second HAWC catalog

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The HAWC (High Altitude Water Cherenkov) observatory recently published their second source catalog with 39 very high energy gamma-ray sources based on 507 days of exposure time. We studied thirteen HAWC sources without known counterparts with VERITAS and Fermi-LAT data. VERITAS, an array of four imaging atmospheric Cherenkov telescopes observing gamma rays with energies higher than 85 GeV, can provide a more detailed image of the source with much shorter exposure time and with better angular resolution. With Fermi-LAT data, we searched for the counterparts at lower energies ($E > 10$ GeV). VERITAS found weak gamma-ray emission in the region of PWN DA495 coinciding with 2HWC J1953+294 in this follow-up study. We will present results focusing on the PWN DA495 region and the SNR G54.1+0.3 region where Fermi-LAT detected a GeV counterpart of SNR G54.1+0.3, a known TeV source detected by both VERITAS and HAWC.

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