

## LOCALIZING CHEMICAL AND BIOLOGICAL THREAT DETECTION

### Ballistic GC (BGC) for CWA Vapor Analysis

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Current near-real time chemical agent vapor analysis is performed with systems that produce results approximately once every five minutes. MRIGlobal's BGC project produced a bench-top GC capable of analyzing chemical agent (CWA) vapor samples with cycle times between 30 – 60 seconds while maintaining or improving detection limits of current near-real time GC referee systems. MRIGlobal in cooperation with Valco developed a system achieving the desired 30 – 60 cycle times and maintained CWA detection limits at or better than 0.01 mg/m<sup>3</sup>. Testing of the system has demonstrated the ability to collect vapor samples and analyze with a 30 second desorption/column cycle as well as the ability to separate GA, GB, GD, GF, HD, VX, TEP, A230, A232, and A234 with a 30 second desorption/column cycle. The BGC can also analyze VX as VX, instead of G-analog of VX.

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