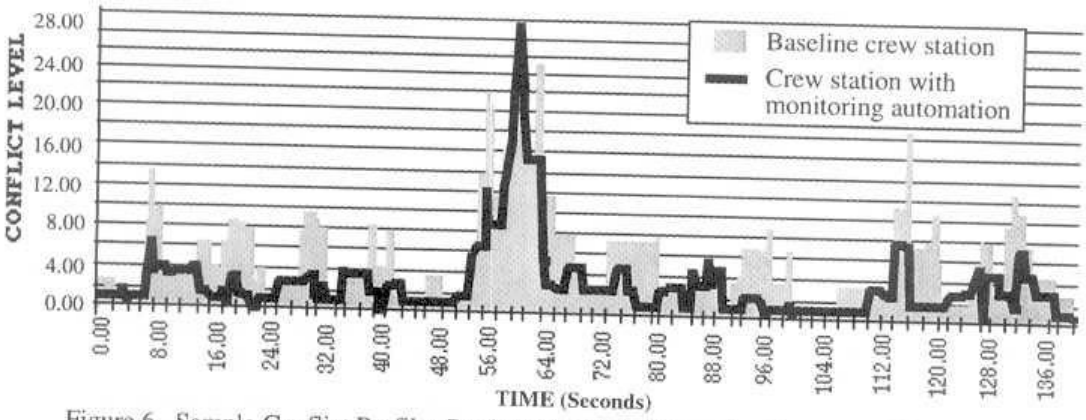

Figure 6. Sample Conflict Profiles Produced by Two Alternative Conceptual Crew Stations.

and, better yet, produces them in some of the most heavily loaded portion of the timeline. These conclusions lend weight to the belief that such an aid is a high payoff development area for the proposed cockpit. By comparing the expected payoffs of other crewstation modifications, including alternate layouts, procedures, task requirements and automation aids, we could assess relative levels of conflict reduction and provide recommendations for future resource expenditures.

4.3 *Using Conflict Levels in Design—A Crew Compliment and Task Allocation Example*

Figures 7-10 come from a program in which we applied W/Index to a crew reduction study for the Army's National Training Center (NTC). This study evaluated various automation concepts for producing a two-man version of the NTC's Opposition Force tanks (Tank Commander--TC and Driver--D but no Gunner). The mix of automation and human crew members were required to continue to perform the tasks of the former three-man crew neither significantly worse nor better than the former crews.

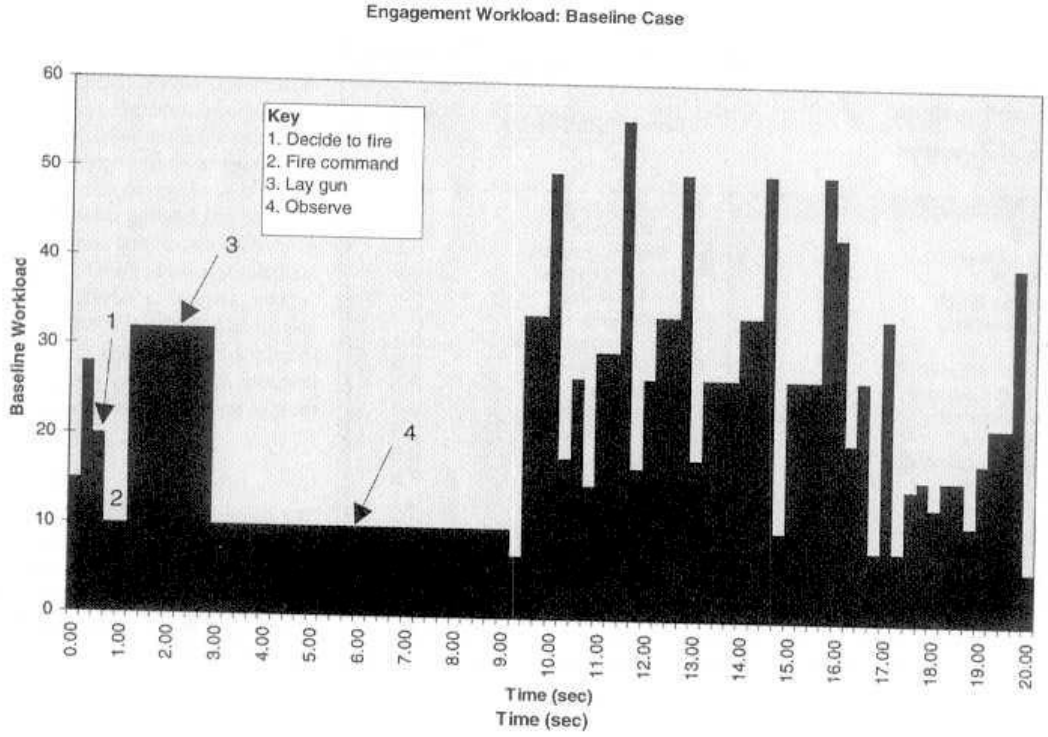

Figure 7. TC's overall workload estimate during engagement scenario in baseline (3 crew) condition-- W/Index output.
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