

- ◆ *\$1.3M in DoD and Army research funding*
- ◆ *Patents awarded on optical communication system and virtual reality system*
- ◆ *Named an R&D100 Award winner and a finalist in the Discover Magazine Awards for Technical Innovation in 2000*

Enhanced Mobility



Combat vehicles must be able to navigate difficult and unfamiliar terrain, respond rapidly to changing mission requirements, and negotiate minefields, battle-damaged terrain and nuclear/biological/chemical release areas. Talking Lights has developed a unique guidance system which allows vehicles to negotiate these hazards with greater accuracy and speed than present technology allows – and with no need for external operator viewing.

The system represents an innovative combination of Smart Marker Lights from Talking Lights with a virtual reality system from Pathfinder Systems. Video cameras provide a view of the outside environment,

which is enhanced by computer-generated, GPS-based terrain and hazardous area markers. At the same time, field-implemented Smart Marker Lights continuously update the view by transmitting data about position, hazards, and the total environment via visual, IR, and RF signals. These markers can also provide information to individual soldiers through palmtop computers. Future enhancements will include active vehicle guidance. The system is to be demonstrated at the Maneuver Support Battle Laboratory at Ft. Leonard Wood, Missouri.