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- (71) Applicant (for all designated States except US): **THE MACALEESE COMPANIES, INC. DBA SAFE ZONE SYSTEMS** [US/US]; 7700 Ouray, N.W., Albuquerque, NM 87120 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **HAUSNER, Jerry** [US/US]; 12925 Manitoba Drive, N.E., Albuquerque, NM 87111 (US). **WEST, Jonathan, M.** [US/US]; 8608 Bellehaven Avenue, N.E., Albuquerque, NM 87112 (US).
- (74) Agent: **ASKENAZY, Philip, D.**; Peacock Myers, P.C., P.O. Box 26927, Albuquerque, NM 87125-6927 (US).

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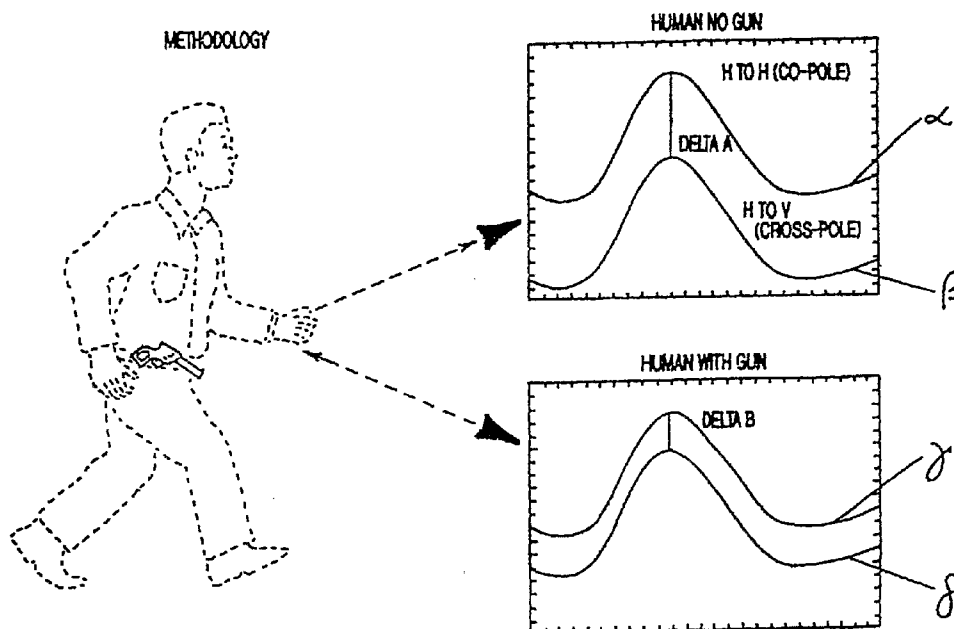
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(54) Title: OBJECT DETECTION METHOD AND APPARATUS



(57) Abstract: Method and apparatus for detecting objects. In one embodiment, a person entering a secured zone is illuminated with low-power polarized radio waves. Differently polarized waves which are reflected back from the person are collected. Concealed weapons are detected by measuring various parameters of the reflected signals and then calculating various selected differences between them. These differences create patterns when plotted as a function of time. Preferably a trained neural network pattern recognition program is then used to evaluate these patterns and autonomously render a decision on the presence of a weapon. An interrupted continuous wave system may be employed. Multiple units may be used to detect various azimuthal angles and to improve accuracy.

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