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(71) Applicant (*for all designated States except US*):
RAYTHEON COMPANY [US/US]; c/o Leonard A.
Alkov, Esq., P.O. Box 902 (E4/N119), El Segundo, CA
90245-0902 (US).

(72) Inventors: **QUAN, Clifton**; 5521 No. Florinda Avenue,
Arcadia, CA 91006 (US). **LEE, Jar J.**; 32 Paso Robles,
Irvine, CA 92602 (US). **PIERCE, Brian M.**; 22501
Sheffield Drive, Moreno Valley, CA 92557 (US). **ALLI-
SON, Robert C.**; 6910 Larkvale Drive, Rancho Palos
Verdes, CA 90275 (US).

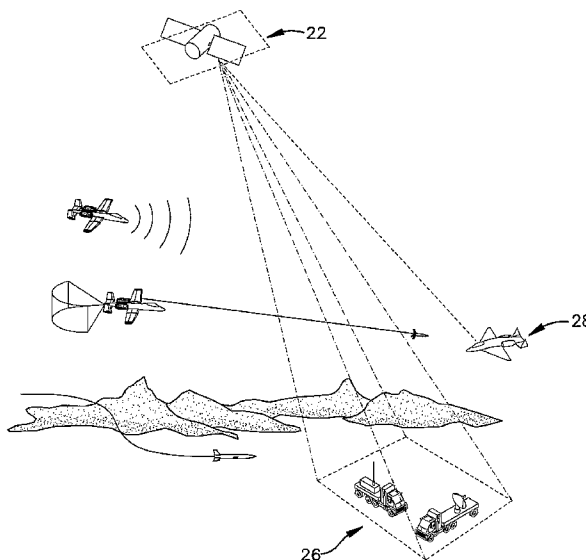
(74) Agents: **ALKOV, Leonard A.** et al.; c/o Raytheon Com-
pany, P.O. Box 902 (E4/N119), El Segundo, CA 90245-
0902 (US).

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(54) Title: WIDEBAND 2-D ELECTRONICALLY SCANNED ARRAY WITH COMPACT CTS FEED AND MEMS PHASE SHIFTERS



(57) Abstract: A microelectromechanical system (MEMS) steerable electronically scanned lens array (ESA) antenna and method of frequency scanning are disclosed. The MEMS ESA antenna includes a wide band feedthrough lens (11) and a continuous transverse stub (CTS) feed array (12). The wide band feedthrough lens (11) includes first and second arrays of wide band radiating elements (14) and an array of MEMS phase shifter modules (18) disposed between the first and second arrays of radiating elements (14). The continuous transverse stub (CTS) feed array (12) is disposed adjacent the first array of radiating elements (14) for providing a planar wave front in the near field. The MEMS phase shifter modules (18) steer a beam radiated from the CTS feed array (12) in two dimensions.

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