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(54) **CORRUGATED GROUND PLANE APPARATUS FOR AN ANTENNA**

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(57) **ABSTRACT**

An antenna comprises an axial helical radiating element and a corrugated ground plane. The axial helical radiating element provides a radiation pattern substantially parallel to a primary axis of rotation of the helical radiating element. The corrugated ground plane, disposed proximate to a back region of the antenna, comprises corrugations to increase an electrical length of travel for radial standing waves between an axial helical input, at which the axial helical radiating element is coupled to the corrugated ground plane, to an outer edge of the corrugated ground plane.