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- (54) **Title:** PAST EVENT SIGNAL TRACKING

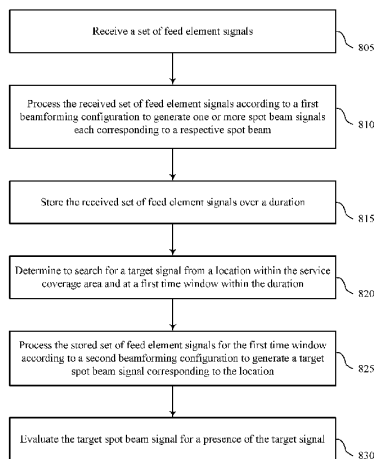


FIG. 8

(57) **Abstract:** Methods, systems, and devices for past event signal tracking are described. In some examples, a system may receive feed element signals corresponding to a set of feed elements of an antenna. To support a primary or real-time mission, the system may process the feed element signals according to a first beamforming configuration to generate spot beam signals, which may include communications scheduled for respective spot beams. To support a retroactive or searching mission, the system may also store the feed element signals for some duration. Based on a determination to search for a target signal from a target location within a coverage area of the antenna, the system may process the stored feed element signals according to a second beamforming configuration to generate a target spot beam signal corresponding to the target location, and evaluate the target spot beam signal for a presence of the target signal..

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