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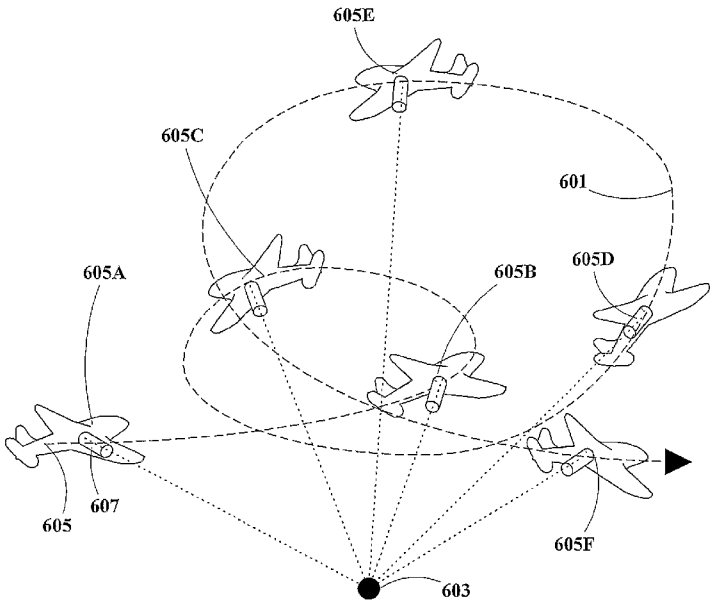
(54) **Title:** A CALIBRATION METHOD AND SYSTEM FOR POSITION MEASUREMENTS



(57) **Abstract:** A method and system for reducing systematic errors in an optical system that makes aerial surveillance position measurements. The flight vehicle executes a trajectory within line-of-sight of a reference target object whose actual position is known to a suitable degree of accuracy, and a set of position measurements is made. From these measurements a set of radial error values is derived, based on the known position of the target reference. From this set, coefficients are computed for insertion into functions of one or more input variables, used as compensating factors to reduce the error in the position calculations. These coefficients and compensating factors are then used in making aerial surveillance position measurements for other target objects.

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