

Method for Increasing the Interference Immunity of the Channel for Measuring of the Short-Range Navigation Radio System

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Abstract—In the presented work, a method is proposed to increase the interference immunity of the range channel of short-range navigation systems, in which a successive transition is made from servicing the request signals of individual range requesters to servicing individual amplitude channels of the received request signals on the range transponder. This made it possible to switch from servicing individual range request signals to servicing individual range requesters and thereby exclude the possibility of paralyzing the aircraft transponder by deliberate correlated interference of the required intensity by the interested party and, as a result, increase the interference immunity of the range channel of short-range navigation systems.

Keywords—interference immunity, short-range navigation systems, ranging channel, GNSS.

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