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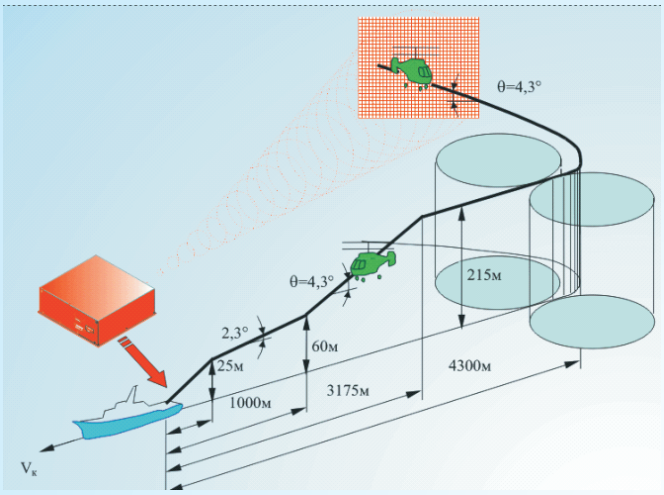
LASER SYSTEM FOR FLIGHT CONTROL AND AIRCRAFT LANDING



The laser system is designed to determine the coordinates of the deviations of the aircraft of the estimated glide path and the transfer value of the deviation on control system of aircraft. The system provides a measurement of the location of aircraft on the angle of elevation, azimuth and range with high accuracy, reliability, and rate measurements. System provides an opportunity to control the trajectory and, if necessary, changing the flight plan during the flight.

In contrast to the well-known radar systems, laser system has higher accuracy and allows you to manage the aircraft on short distances.

Technical data	Variant 1	Variant 2
Maximum range of detection, km	0,7	5
Minimum range of detection, m	50	50
Accuracy of measurement of the flight range, m	±2	±1
Range of detection of a flying vehicle by the angle of elevation and azimuth, deg	±1,2	±1,2
Range of measurement by the angle of elevation and the azimuth, deg	±35	±45
Accuracy of measurement by the angle of elevation and the azimuth, mrad	±0,8	±0,8
Frequency of measurements, Hz	25	25
Laser wavelength, μm	0,88	1,54
Radiation power of a pulse, W	16	$3x10^3$
Duration of laser pulses, ns	100	20

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