Problem 2

S-UAS On-board Dynamic Route Planning for Moving Objects Imaging

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A small UAS (s-UAS) with on-board sensors is required to identify moving objects on the surface of oceans. ·For a given sensing capability, how does the separation of s-UAS and object, together with relevant environmental effects, impact system performance? In a given context and for a given performance level, what is the maximum stand-off distance for the sensor?

How is the flight trajectory control determined so as to maintain the s-UAS within the optimal operational zone? During the execution of a flight plan, how do changes in image quality lead to re-planning and adaptive behaviour of the platform?