CLAIMS

1. A system comprising a primary radar system comprising one or more phased array antenna systems, a sensor arrangement, and a control system;

said sensor arrangement comprises one or more sensors configured for collecting sensing data indicative of presence and location of one or more unmanned aerial vehicles (UAV’s) within a predetermined region, and to provide said sensing data to the control system;

the control system comprises at least one processor configured for processing the sensing data, determining a need to deactivate score for the one or more UAV’s, and generating operational instructions to the primary radar system for generating a deactivation beam directed toward location of said one or more UAV’s, thereby deactivating said one or more UAV’s; wherein said sensor arrangement comprises one or more acoustic sensors operable for detecting acoustic signals associated with UAV operation, and wherein the one or more acoustic sensors utilize received signal strength (RSS) for determining data on location of one or more signal sources;

characterized in that said operational instructions comprise data on location of one or more detected UAV' s and instructions to said primary radar system to emit by the one or more phased array antenna systems of the primary radar system a focused high intensity RF beam directed at said location of the one or more unmanned aerial vehicles to deactivate at least partially said one or more UAV's, thereby providing said deactivation beam.

2. The system of claim 1, wherein said sensor arrangement comprises two or more sensors configured to be positioned in two or more different positions in vicinity of the primary radar system, thereby providing sensing data enabling triangulation of one or more UAV’s positions.

3. The system of claim 1 or 2, wherein said sensor arrangement comprises one or more sensors selected from optical sensors, a RF sensor, a lidar, a secondary radar unit and a camera operable in visible or infrared wavelength range.

4. The system of any one of claims 1 to 3, wherein the control system comprises a signal processor configured for receiving and processing said sensing data to determine a likelihood measured indicative of probability that source of the sensing data is a UAV, thereby enabling deactivation of detected UAV's.

5. The system of claim 4, wherein said signal processor comprises trained machine learning module, trained for determining one or more UAV's presence within received sensing data.

6. The system of claim 4 or 5, wherein said signal processor operates for determining said likelihood measure in accordance with one or more parameters of signal source selected from: speed, size, moving pattern, physical shape, and acoustic signal.

7. The system of any one of claims 1 to 6, wherein said control system comprises a signal locator module configured and operable for receiving and processing said sensing data and for determining data on location of signal source, generating sensing data associated with one or more UAV's.

8. The system of claim 7, wherein said signal locator module is configured for determining location of said signal source in accordance with direction and distance data included in said sensing data.

9. The system of any one of claims 1 to 8, wherein said need to deactivate score is determined based on said sensing data and pre-stored conditions comprising conditions associated with one or more of: size of UAV, UAV signature, UAV position, and UAV movement pattern.

10. The system of any one of claims 1 to 9, wherein said control system comprises a verification module configured for continuously receiving sensing data from the sensor arrangement and for processing the sensing data to determine activity status of said one or more UAV's to thereby determine success score of the deactivation beam.

11. A method comprising: providing sensing data obtained by sensor arrangement positioned in vicinity of a primary radar system; processing the sensing data and determining data indicative of presence and location of one or more unmanned aerial vehicles (UAV's) within a predetermined region; generating operational instructions to said primary radar system to emit a deactivation beam toward located of said one or more UAV's to thereby deactivate said one or more UAV's; wherein said sensor arrangement comprises one or more acoustic sensors operable for detecting acoustic signals associated with UAV operation, and wherein the one or more acoustic sensors utilize received signal strength (RSS) for determining data on location of one or more signal sources; and

characterized in that said operational instructions comprise instructions to said primary radar system to emit by the one or more phased array antenna systems of the primary radar system a high intensity RF beam focused to location of said one or more UAV's thereby providing said deactivation beam.

12. The method of claim 11, operable by at least one processor and memory circuitry comprising one or more processors.

13. The method of claim 11 or 12, wherein said sensing data comprises at least one of: acoustic sensing data obtained by one or more acoustic sensors, image data obtained by one or more cameras, RF data obtained by a secondary radar system, and lidar data obtained by a lidar unit.

14. The method of any one of claims 11 to 13, wherein said operational instructions further comprise verifying success of UAV deactivation using a verification module receiving ongoing sensing data from the sensor arrangement.