

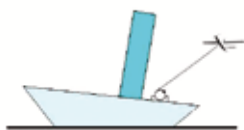


M. Yoffe Aero. Eng. MBA

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Yoffe has pioneered a point-recovery method for fixed-wing UAVs.

gle areas, snow, darkness, etc. Exceptionally advantageous in strong winds.



M. Yoffe
Aero. Eng. MBA
27 Haluz St.
Holon 58435, Israel

Tel: 972-3-5051237
Fax: 972-3-5011141
Mobile: 972-50-6364041
myoffe@bezeqint.net

Point-Recovery Method

- The method performs final haul-down of the UAV by cable-pull, hence the point accuracy. No runway or flight-deck is needed; method provides a "seize/stop-in-air/soft touch-down" termination to any landing approach, easier for a human controller or auto-guidance device. Guidance and control requirements are minimal, even if a man is in the loop.
- UAV requires only a trailed hook and a special parachute that doubles as/replaces a regular emergency recovery parachute.

Applications

Land-UAV's point recovery onto a site:

No runway needed, minimal equipment mounted on a vehicle or carried by helicopter for maximal tactical flexibility.

Land-UAVs recovery direct to the transporting vehicle:

This is for smaller or larger UAVs. Eliminates damages of pure-parachute landing in winds due to falling on trees, water-bodies or hard touchdowns. Needs no retrieval-team operations in forested-jun-

Shipborne fixed-wing UAVs recovery to all ship types:

Primary advantage solving for large-wingspan endurance UAVs recovery fit for destroyers with helipads, vessels with smaller decks. Option for no free-deck solutions, no installation above deck if desired.

Expeditionary Shipborne Forces' UAV flexibility:

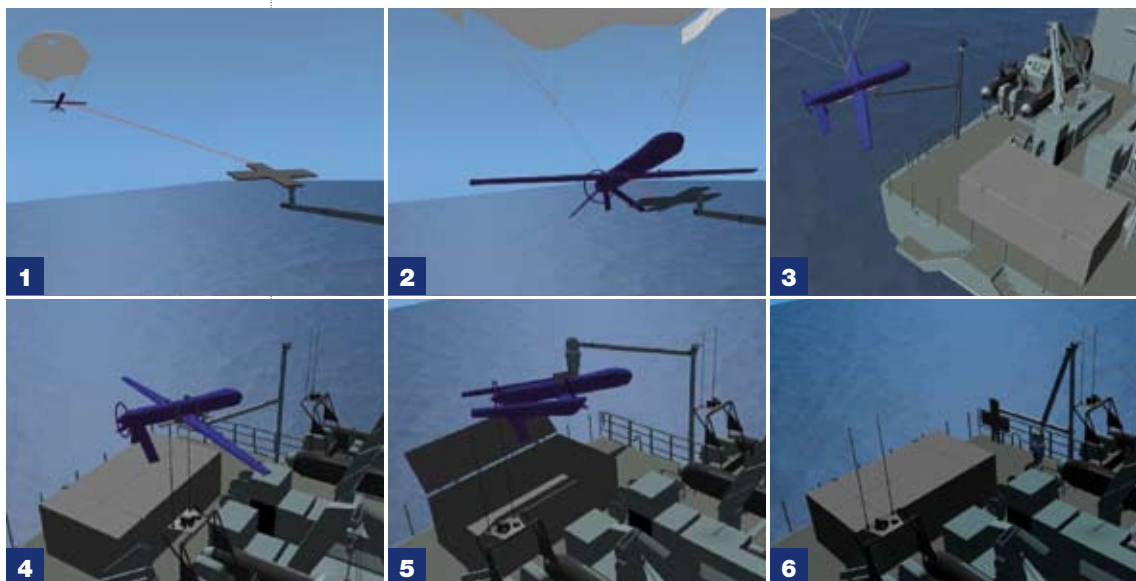
Enabled to double as ship-based and shore-based, due to same recovery interface.

Land-Recovery characteristics:

Large engagement 'window', low sensitivity to wind gusts near ground or sudden wind direction changes, very slow/zero sink rate on touchdown, minimal equipment, simple control, fast setup.

Ship-recovery characteristics:

Lends itself to various degrees of man out of the loop; high sea-state and small ship dynamics accommodated, all-weather, day/night operation in conjunction with guidance systems like UCARS; accommodates all ship-speed/wind-speed and direction combinations including zeros and reverse; principles require no operational limitations on the ship.



Fixed-wing UAV recovery to small ship direct to a container, no free deck used