

ANADRONE

**BUILDING TRUST,
SECURING FUTURE**



ABOUT US

Anadrone Systems is one of India's leading manufacturers and suppliers of target drones and has supplied over 700 target drones to the Indian market. It was founded in the year 2004 and has R&D and manufacturing unit located in Odisha.

It is one of the largest service providers for the Indian Armed Forces with a 100% success rate and has completed over 50 missions with more than 250 sorties. The company prides itself on its massive technological know-how from years of experience in sales and service support. Almost 18 years of successfully serving customers have made them proficient in providing customized solutions and payloads as per requirements.

To comply with Atmanirbhar Bharat initiatives, Anadrone Systems is in the process to diversify its product portfolio by introducing indigenously developed low sub-sonic, high sub-sonic and super-sonic aerial targets for the Indian defence forces. For the effective dispensation of the vision, the company has invested in research and development facilities in coordination with eminent advisors across the country.



OUR VISION

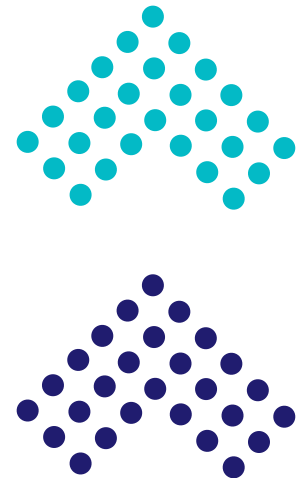
To provide state-of-the-art, turnkey solutions to the global defence sector in form of testing appurtenances for **NexGen munition systems**.

SOVEREIGN CAPABILITY

Indigenous development of sub-sonic and supersonic aerial targets to comply with “**Make in India**” initiative through extensive research and development.

INNOVATION

Global competitor in the field of **High-speed Expendable Aerial Targets [HEAT]** and **Manoeuvrable Expendable Aerial Target [MEAT]** through in-house development of technical capabilities and production capacity.



Shikra Model Aircraft Target

Low cost, remotely piloted target designed for air defence simulations on land and sea. Can also be used as a training aircraft. Fitted with latest mini avionics suite that gives the target a radius of operation from the ground control station of more 40km of autonomous flight.



Shikra Whirlwind

Aerial targets were developed to represent threats posed by UAVs, enemy aircraft and general aerial threat weapons. Powered by propellers, these variants of which have been used to test the effectiveness and operational readiness of weapon systems. For improved cost effectiveness, the propeller driven Shikra is able to tow a range of towed targets.



Shikra Jet 40+

Originally supplied to the Indian defence forces in its Jet 40 format, the latest, Make-in-India derivative is powered by a more powerful rear mounted jet engine which provides 45Kg of static thrust giving it an improved performance with a top speed in excess of 135m/s by the rear mounted jet engine producing 40kg static thrust.



Shikra Jet 80+

This target drone which is powered by 2 off 45Kg thrust engines, offers customers higher speeds up to 200m/s with endurance of 55 minutes. Suitable to be used against SAM and AAM missiles both across land and sea, the performance of the drone is easily varied by plug-in modules.



Shikra Next Generation (NG)

Powered by twin gas turbine engines, the target provides straight and level air speeds in excess of 250m/s. A large fuel capacity of 100 litres gives a comfortable endurance of over an hour dependant on mission parameters.



Naga - Ground Air Launched Supersonic Target (GAL - ST)

Designed and engineered to realistically replicate air-launched Anti-Radiation Missiles (ARMs) and supersonic high-diver threats. It is capable to be operated for highly effective weapon system research, development test & evaluation, operational test & evaluation, and training - oriented air defence scenarios. Ground launch speeds exceed 1.85 Mach and phased approach to air launch option to reach higher speeds provides kinematic performance at very low cost compared to the currently available manoeuvrable supersonic targets.



Accessories

All of the Shikra target derivatives detailed above may be configured with a variety of specialist payloads and accessories to suit and fully test the weapon being exercised. These payloads, many of which may be fitted simultaneously include: Smoke tracking and Infrared flares, Hot nose – black-body IR source, IR and chaff decoy dispensing pods, IFF transponder capable of modes A and C, Luneberg Lenses, active radar augmenters, Radar altimeter, sea-skimming augmenters, Acoustic and Doppler Radar MDI (360° IR signature), Active Radar Homing Emulator (AHRE).

Ground Support Equipment

We have a dedicated in house fabrication centre to produce ground launchers and ground support equipment to facilitate launch of the aerial vehicles



TARGET OPERATING SERVICES

Aerial target services are provided to several Indian weapon system manufacturers for developmental testing and acceptance trials. The systems are operated by skilled personnel who are experienced in operating them around the world for all the current air defence weapon system types. Target operating services are provided both in land and at sea.



A combined module enclosed in an air conditioned ISO shipping container acts a ground control station during test flights of the targets. Also, safe passage of a number of reusable aerial drones is ensured during road travel in such containers.



COMPLETED FIELD OPERATIONS

- 1 VSHORAD - 2017
- 2 ASTRA - 2018
- 3 QRSAM, ASTRA - 2019
- 4 QRSAM, MRSAM - 2020
- 5 BEL L-70 GUN, ADA LCA, IAI, L&T, Akash NG, AKASH PRIME - 2021
- 6 MRSAM, ASTRA, AKASH NG, VLSRSAM, QRSAM - 2022

PAYLOADS AND CAPABILITIES IN REGULAR USE

- RADAR altimeter for sea skimming
5 – 8000m
- RCS enhancements (Luneberg lens)
- IR Flares
- Hot nose black body IR source
- Missed distance indicator
- High rates of descent

“Providing proven and realistic threat replication on the sea and in the air for the test and evaluation of all self-defence weapon systems”

OUR UNIQUE OFFERINGS IN TARGET SYSTEMS

Production

- Company holds the IP rights of all the drones manufactured in India
- Extensive facility for production of GCS and assembly of Targets in Odisha
- Integrated manufacturing and testing facility in the pipeline

Field Services

- Extensive support in terms of training and performance in live missions
- On-ground support for different turnkey projects
- Defence veterans as drone pilots to understand the intricacies of testing and support

Research and Development

- Innovation cell for evolving market requirements
- Latest technology intervention and incubation
- Futuristic development

MRO

- Continuous customer support through maintenance contracts
- Micro parts supply and service
- Upgradation services of existing drones with the latest avionics on a cost and requirement basis



SURFACE TARGET SYSTEMS

Whether it is at sea or on land.

Anadrone is able to provide a variety of agile, unmanned vehicle solutions.

For operations at sea there is a range of remotely controlled boats from simple rigid hull inflatables powered by an outboard motor through hard chine mono-hull sporting an inboard engine with outdrive leg to large, rigid hull

inflatables powered by diesel engines with the out-drive unit.

In addition to their use as a direct kill target, they may also be used as a tug to tow a variety of inflatable and rigid hull sub-targets.



OUR FUTURE- READY TECHNOLOGY



Supersonic Targets estimated to be about **1.5 – 2 Mach** with an operative range of **100km**. Supersonic endurance may vary between **30 - 40s** in pulses and high sub-sonic flights for injection and cruise.



9G manoeuvrability for Shikra NG concept with more than 250m/s at maximum thrust



4G turn
Manoeuvre kit





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