
GIDS
Empowering Your World
UNMANNED
SYSTEMS
FOR EVERY
MISSION
GLOBAL INDUSTRIAL & DEFENCE SOLUTIONS PAKISTAN

GIDS
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GLOBAL
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PAKISTAN

Global Industrial & Defence Solutions (GIDS); feels pride being a premier defence company of Pakistan. The core objective of GIDS is to research, develop and market defence capabilities locally as well as internationally. GIDS represents a group of companies involved in research, development, delivery and support of leading edge industrial and defence systems in the field of air, land and sea.

We provide support and services solutions for current and future defence, security, and information technology systems. We design, develop and manufacture a wide range of electronic systems and sub-systems for both military and commercial applications. We also design, develop, produce, and provide service support for armoured combat vehicles, artillery systems and intelligent munitions.

Technology and innovation are the keystones of GIDS success and competitive edge. GIDS companies invest a huge amount in R&D activities making us the leading Pakistani investor in hi-tech sectors. We lay great emphasis on training and development of our human resource. Our companies are staffed with highly specialized researchers. Our organization is designed to deliver capability and overall financial performance to meet customers' needs.

COMPANY PROFILE

PARAMETERS	SURVEILLANCE	ARMED
Endurance	14 Hrs	07 Hrs
Service Ceiling	20,000 ft	18,000 ft
Max Speed	120 Knots	120 Knots
Take-off Speed	80 Knots	80 Knots
Stall Speed	63 Knots (approx)	
Climb Speed	70 -75 Knots	
Cruise Speed	80 - 85 Knots (subject to configuration and weight)	
Data Link Range	300Km (LoS), BLoS	
Radius of Action	BLoS (1050Km, depends upon availability of satellite footprint and mission)	
Take-off Distance	1500 ft (approx)	
Landing Distance	1700 ft – 2000 ft (approx)	
Weapon System	-	2 x AGMs of 60kg under each wing station

FEATURES

- Improved Aerodynamics & Structure
- Enhanced Payload Options (i.e. COMINT / ELINT, SAR, EO/IR)
- SATCOM capable
- Mid-air Engine restart capability
- Equipped with ATC transponder / Provision of IFF
- Provision of Internal Pilot
- Enhanced Propulsion System
- Retractable Landing Gears
- Asymmetric landing

WEAPON SYSTEM (SHAHPAR II – ARMED)

- In Armed configuration, UAV is equipped with 2 x AGMs / weapon of 60kg under each wing station.
- 3rd party AGM can also be integrated with Shahpar-II keeping in view carriage capacity and integration feasibility

SHAHPAR-II

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SHAHPAR – II

ARMED UAV SYSTEM

Shahpar-II is a medium altitude, long endurance unmanned aircraft with armed capability. It has a modular airframe structural design comprising of advanced composite and metallic hybrid structure with improved aerodynamic design. Some of the notable features of the Shahpar system include autonomous take-off and landing system, a robust autopilot scheme, user friendly and a comprehensive mission planning and management software suite, reliable data links and the capability of integrating various types of EO payloads.

TECHNICAL SPECIFICATIONS

Operational Specifications	Range	2.5 – 8.0 km
	Launch Altitude	500 to 5000 meters (MSL)
	Carrier Launch Speed	150 to 220 km / hr
	Max Missile Speed	Ma ≤ 1.1
	Launch Angle	+ 20°
	Hit Probability	> 90%
Physical Specifications	Length	1450 mm
	Diameter	Ø 180 mm
	Weight	≤ 45Kg
Storage	Storage life	10 years in Standard Conditions
Laser Seeker	Laser Wavelength	1064 nm
	Laser Pulse Width	15+ 5ns
	Pulse repetition frequency	19 ~ 21 Hz

FEATURES

- Semi-active laser-guided AGM
- Launched from UAVs and attack helicopters
- Superior strike accuracy and reliability against
  - Enemy personnel
  - Light & armored vehicles
  - Bunkers and buildings
  - Lock-on Before & After Launch (LOBL, LOAL)

LAUNCHER CONFIGURATION

- Single and Double Launcher for Helicopters
- Single and Double Launcher for UAVs

BURQ

BURQ

AIR TO GROUND MISSILE (AGM)

Burq is a Semi Active Laser Guided Air to Ground Missile (AGM). It has the capability to precisely attack the enemy personnel, light and armored vehicles, bunkers and buildings with high integration level, superior fire accuracy and better reliability. The semi-active laser seeker and cutting-edge navigation technologies makes it exceptionally accurate and distinguished weapon system to precisely engage moving and static targets.

PERFORMANCE CHARACTERISTICS

Configuration	Catapult Launched (Net / Parachute Recovery)
Endurance	8+ hrs
Maximum Operating Altitude	20,000 + ft
Data Link Range	150 km
Gross T / O Weight	100 kg
Wing Span	6 m (19.685 ft)
Guidance / Tracking	Fully Autonomous/ Remotely Piloted
Communication System	Primary Link in C-Band and Backup Link in UHF

FEATURES

- Real Time Telemetry & HD Video
- Optimized RCS
- Emergency Recovery System through parachute
- Dual redundant / Fault tolerant FCC
- Integrated modular LRU design
- Primary and backup communication links
- Frequency changing option during flight
- Hybrid / Tri constellation Navigation System
- Modular design for transportation

UQAB-NG

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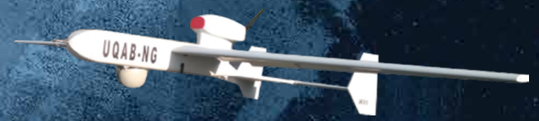

UQAB-NG

TACTICAL UAV SYSTEM

Uqab-NG UAV is a catapult launched, net recovered Tactical UAV System designed to conduct reconnaissance & surveillance missions while offering long endurance, high service ceiling and optimized RCS Signature. It is a low weight and compact system ideal for real-time surveillance missions up to 150 km with 8 + hrs of endurance. The performance and capabilities of Uqab-NG makes it superior to any other conventional surveillance UAV. Uqab-NG has been precisely designed for the clients requiring an ultimate solution for their operational needs without any runway.

PERFORMANCE CHARACTERISTICS

Configuration	Canard Pusher
Air Vehicle Length	4.2 m
Wing Span	6.6 m
Gross T/O Weight	480 kg
Payload Weight	50 kg
Endurance	> 7 hrs
Max Operating Altitude	15000 ft
Cruise Speed	150 kph
Maximum Power Of Engine	100 hp
Data Link Range(Real Time)	250 km
Guidance / Tracking	Autonomous, GPS Based (Manual Control Channel Available)
Power Plant	100 hp (4 - Cylinder, 4 Stroke Piston Engine)
Take-Off / Launch	Automatic, Wheel Take-Off
Landing / Recovery	Automatic Landing, Manual Pilot and parachute option available

FEATURES

- Autonomous take-off and landing
- Various types of payloads integrated for reconnaissance
- Accurate lateral and longitudinal trajectory control
- Mission planning, management & control
- Dual redundant Flight Control System
- Indigenously developed software tools
- Full autonomy as well as shared autonomy (decision making shared by operator and software)
- RPV (remotely piloted vehicle) mode available
- Easy maintenance
- Safe recovery and landing in case of data link loss
- Simplified Operation, quick into action, minimal manpower and operating base requirements
- Low operational cost

SHAHPAR

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SHAHPAR
TACTICAL UAV SYSTEM

Shahpar is a medium range tactical UAV System capable of conducting round the clock surveillance providing its user with imagery that is reliable, real time, accurate and consistent. The aircraft accommodates diverse mission profiles and offers flexible payload configurations, allowing it to serve in similar mission capacities to much more expensive systems.Shahpar addresses immediate and future tactical surveillance requirements of its users with proven performance and multi-mission capability. Other features include accurate lateral , longitudinal trajectory control, mission planning , management & control , geo referencing & geo pointing for terrestrial targets.

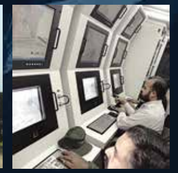
APPLICATIONS

- Provides Persistent Surveillance Support
- Protecting Border / Border Monitoring
- Conduct Humanitarian Assistance
- Provide disaster relief support in floods & earthquakes
- Artillery Adjustment
- Remote Damage Assessment
- Information relay
- Geological Surveying

PERFORMANCE CHARACTERISTICS	
Range	50 km
Endurance	<4 hrs
Height Ceiling	3,000 m
Speed	120 ~ 150 km/hr
Launch/Recovery	Wheeled
Flight Mode	Autopilot/RPV 1000 way points, Re-programmable during flight Fail-safe mode, Loiter mode & User defined holding patterns
Tracking/Navigation	GPS Based
Telemetry Data	Real time digital video Position and health of UAV Geo-referencing
Payload Weight/Type	Gyro-stabilized gimbal with color day camera, thermal imager with target tracking and locking capabilities
Power Plant	50 Hp (Approx.)
Wing Span	5.5 m
Length	4.0 m

FEATURES

- Modular design
- Proven system
- Easily deployable
- Fail safe and redundant operation
- Low maintenance costs



UQAB

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UQAB

TACTICAL / TRAINING UAV SYSTEM

Uqab is a tactical UAV System which can be effectively used for battle damage assessment, aerial reconnaissance, artillery fire correction, joint forces operations, search and rescue missions, coastal area surveillance, route monitoring, internal security / mob control and flood relief operations etc. Presently the system is being used by Pakistani Security Forces. It has completed over 500 sorties compiling over 1500 flight hours to date. The basic structural design of UQAB UAV utilizes low cost composite materials significantly contributing to its low maintenance costs. A modular design enables it to be deployed quickly using semi prepared landing strips. UQAB has all the features of a modern tactical UAV including day & night surveillance capabilities, video tracking, target lock on, autonomous mission execution and mission planning facilities.

Due to its low cost, easy adaptability and maintainability, UQAB is regarded as viable entry level system for inculcating a culture for UAVs in any force. This system may also serve as the ideal platform for training and even raising a dedicated UAV squadron from ground up.

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PERFORMANCE CHARACTERISTICS

Diameter	2 m
Weight	6 kg
Radio Range	5 km (LoS)
Operating Radius	3 km (LoS)
Endurance	> 45 minutes
Ceiling	1200 ft.
Power Plant	4 x Brushless Electric Motor
PowerSource	Li Polymer
Flight Modes	Autonomous/SemiAutonomous / Manual
Navigation	GPS based
Wing Span	1.22m
Payload	EO Sensor with 10 X Zoom. IR (un-cooled) sensor
Take-Off / Landing	Vertical Take-off
GCS	Portable, Weighing less than 5 kg, Real Time Video with GPS overlay, Real Time UAV position tracking on moving map,Video recording, snapshots and mission play back

FEATURES

- Hovering capability gives additional time over target
- Only two men Operational Crew
- GPS based navigation and height lock
- Day or Night video surveillance
- Option of Target Locking and Geo-referencing
- Real Time surveillance video
- 2-axis gyro-stabilized gimbal support
- Fail safe: Auto return to home
- Voltage monitoring / protection
- Intelligent Orientation Control (IOC)
- Point of interest function
- 1key Go Home

FLIGHT PERFORMANCE

Hovering Accuracy	Vertical ± 0.5 m Horizontal ± 1.5 m
Max. Wind Resistance	< 8 m / s
Max Yaw Angular Velocity	150 deg / sec
Max Tilt Angle	350
Ascent / Descent	± 6 m / s

SCOUT VTOL

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SCOUT VTOL

UAV SYSTEM

Scout UAV system is a mini UAV system with Vertical Takeoff and Landing (VTOL) systems having the hovering capability. It is a Quad-Copter configuration with four brushless electric motors. The high number of motors gives the UAV requisite thrust to carry a payload of up to 2 kg. Scout-VTOL Mini UAV's light weight and small size make it ideal for quick deployment and portability, giving users an extra edge. It is mainly used for the surveillance and reconnaissance in multiple terrain environments including across the hill monitoring situation. Low deployment time, easy carriage and mobility makes them the choice for local area commanders. Main application includes perimeter surveillance, route monitoring, search & rescue, battle damage assessment and event monitoring etc. In order to achieve maximum time over target hovering capability is considered necessary.

The 4 x Brushless Electric Motors used in Scout-VTOL Mini UAVs offer high reliability and low maintenance. They have very low acoustic and heat signatures. It uses Lithium Polymer batteries for power which cater for high current surges required to run an electric engine.

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ZUMR-1 (EP)

DAY AND NIGHT SURVEILLANCE

Features
High performance Multi spectral Imaging
24/7 Mission Capability with Enhanced Imagers
Low weight and small size
Highly stabilized system
2 onboard LRUs (Line Replaceable Units)

Missions
Day and Night surveillance of site
Border surveillance
Homeland security
Search and Rescue
Tactical support
Aerial imagery

Technical Characteristics
4 axis gyro stabilized system
Azimuth 360° continuous
Elevation 10° to – 110°
Weight 36.5Kg
Ø 380 mm (15")

Power Requirement and Interface
Voltage 22-32 VDC
Power 400 W (600 W max)
Video Interface Analog, PAL
Serial Interface RS232, RS422

Environmental
MIL-STD-810F
MIL-STD-461E

Sensor Configuration
Enhanced Day Imager (Continuous Zoom)

Resolution:	752 × 582

Field of View

Wide	24°H × 18°V
Narrow	0.9°H × 0.7°V
Zoom	27× (Optical

Thermal Imager

Resolution	640 × 512 FPA
Field of View:	
Wide	24.3°H x 19.5°V
Medium-Wide	4.0°H x 3.2°V
Narrow	1.26°H x 1.0°V
Super-Narrow	0.63°Hx 0.5°V (E-Zoom)

Laser Range Finder

Range	20m – 20km
Accuracy	+ 5m
Measuring Rate	10 Ranges / Min

Laser Pointer
NVG Compatible (0.3W)

Platforms
UAVs, Aircraft, Helicopters, Naval Ships

ZUMR-I

ZUMR-II

DAY / NIGHT SURVEILLANCE & TARGETING PAYLOAD

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Features
High performance Multi spectral Imaging
24/7 Mission Capability with Enhanced Imagers
Low Weight and Small Size
Highly Stabilized System
2 LRUs (Line Replaceable Units)

Missions
Tactical support
Aerial imagery
High performance EO/IR payload for precision munitions (LGB, Missile) delivery
Battlefield Damage Assessment
Search and Rescue, Tactical Support

Technical Characteristics
4 axis gyro stabilized system
Azimuth 360° continuous
Elevation 10° to – 110°
Weight 49Kg
Ø 450 mm (≈17.5")

Power Requirement and Interface

Voltage	24-32 VDC
Power	400 W (600 W max)
Video Interface	Analog, PAL
Serial Interface	RS232, RS422

Environmental
MIL-STD-810F
MIL-STD-461E

Sensor Configuration
Enhanced Day Imager (Continuous Zoom)

Resolution	752 × 582
Field of View:	Wide 24°H × 18°V
	Narrow 0.7°H × 0.5°V
	Zoom 34× (Optical)

Thermal Imager

Resolution	640 × 512 FPA
Field of View:	
Wide	24.3°H x 19.5°V
Medium-Wide	4.0°H x 3.2°V
Narrow	1.26°H x 1.0°V
Super-Narrow	0.63°H x 0.5°V (E-Zoom)

Laser Designator

Range	20m – 20km
Accuracy	+ 5m
Measuring Rate	10 Ranges / Min

Laser Pointer
NVG Compatible (0.7W)

Platforms
UAVs, Aircraft, Helicopters, Naval Ships

ZUMR-II

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GCS & GCS SOFTWARE

- Truck Mounted
- Air Conditioned / Insulated Container
- Generator / UPS for Power Backup
- Standard Equipment Consoles comprising of Primary, Backup and Payload Consoles
- Ergonomic in design
- Crew consoles for Mission Commander, Internal Pilot and Payload Operator
- Designed with System redundancy
- Mission Planning Software Suite
- Mission Building Module
- Perform inter visibility (LOS) calculations
- Provide aids to mission planner
- Enable user to draw geo-referenced shapes
- Insert / edit waypoints on maps
- Mission Monitoring Software
- Various Data Display Options including HUD and instrumentation panel views
- Video and Data Recording and Archiving Launch and Recovery of Multiple UAVs from Single GCS

GCS

NAHL

LIGHT-WEIGHT SURVEILLANCE PAYLOAD

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Features

- Light weight suitable for small UAVs,
- Single LRU based surveillance system
- Highly stabilized Multispectral Imaging
- 24/7 Mission Capability with Enhanced Imagers
- Day and Night surveillance of site (Offshore platforms, industrial and sensitive sites)
- Border surveillance and homeland security
- Tracking, Tactical support

Technical Characteristics

4 axis gyro - stabilized system
Azimuth 360° continuous
Elevation 10° to – 110°
15 Kg
Ø 10.5", Height: 16"

Power Requirement

Voltage 28 VDC
Consumption <200W

Environmental

MIL -STD-810F, MIL-STD-461E

Sensor Configuration

Day Camera HD

Resolution	1920 x 1080
Field of View:	
Wide	63.7°H x 47.7°V
Narrow	2.3° H x 1.7°V
Zoom	30x (Optical)

Spotter Scope/NIR HD

Resolution	1920 x 1080
Field of View:	
Wide	24° H x 13°V
Narrow	0.9° H x 0.5°V
Zoom	27x (Optical)

Thermal Imager SD

Sensor	640 x 512 MCT
Field of View:	
Wide	16°H Å~ 12°V
Narrow	1.8°H Å~ 1.35°V
Zoom	9x (Optical)

Laser Range Finder & Laser Pointer

Range	2KM max
LP	NVG Compatible (0.3W)

Platforms

UAVs, Aircraft, Helicopters Aerostats and Ground Based Vehicles for area monitoring

NAHL

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GIDS product portfolio along with short demo videos are available on GIDS app; available on Apple and Android platform

Available on the App Store

Available on Google Play

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