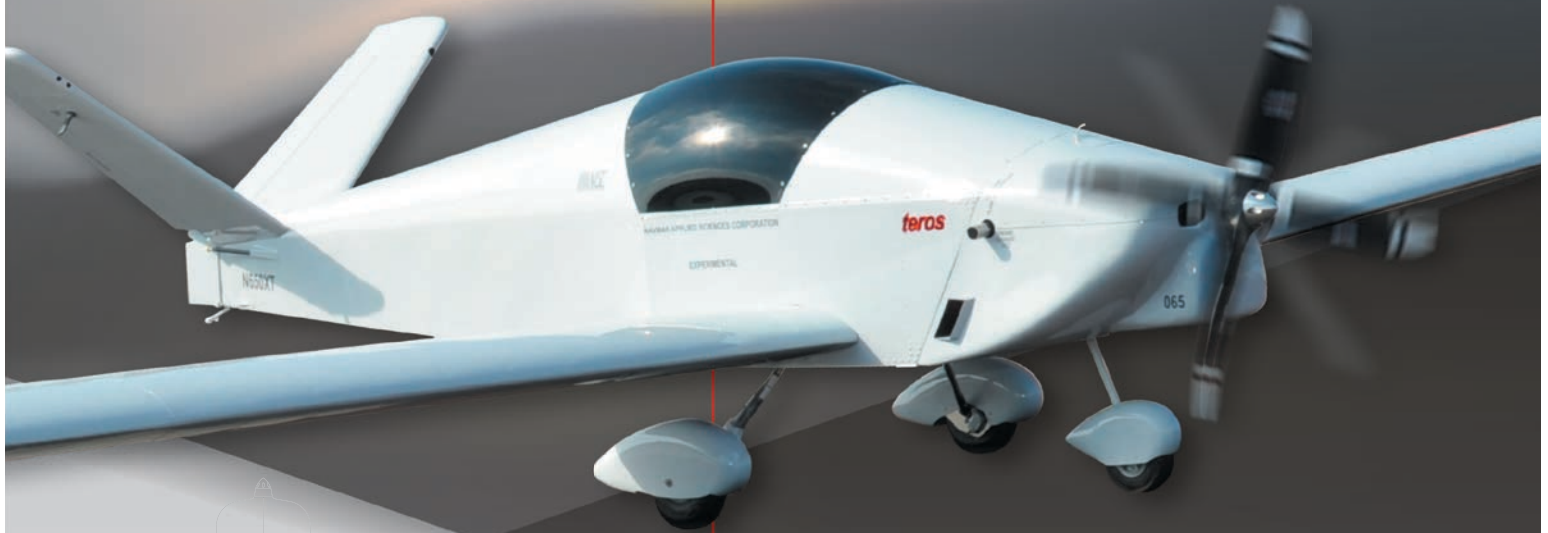




Unmanned Elegance
Unmatched Adaptability



Sleek, aerobatic, and highly adaptable, the Teros from Navmar Applied Sciences Corporation is the perfect airframe for a multitude of UAV applications.





PERFORMANCE - RELIABILITY - AFFORDABILITY

Sleek, aerobatic, and highly adaptable, the Teros from Navmar Applied Sciences Corporation is the perfect airframe for a multitude of UAV applications. Designed to meet the expanding requirement for an extended range, high altitude aircraft, the Teros can operate in a wide range of environments and excel at the most challenging missions. The rugged and resilient Teros was derived from a proven airframe that has logged thousands of mishap-free flight hours. Its robust and unique construction makes it highly durable without adding unnecessary weight or sacrificing payload capacity. Putting it simply, the Teros is an American-Made solution that does the job at a fraction of the cost of similarly capable unmanned aerial vehicles.



ADAPTABILITY

"A low cost, medium altitude, long endurance UAV with maximum versatility that excels in an endless variety of complex applications," is the concept behind the NASC Teros™. This single engine, low wing, V-tail monoplane offers a utilitarian design fully capable of carrying multiple payloads simultaneously for long periods of flight. In addition to offering sufficient volume for larger payloads, the Teros also features the electrical power required by equipment with high energy consumption. A flexible open architecture gives the Teros the unique ability to be reconfigured to meet different customer requirements with little customization or retrofitting. This same "open architecture" allows the configuration flexibility to accept a great number of unique components.

APPLICATIONS AND PAYLOADS

Conceived as an answer to the need for an affordable, “do-it-all” UAV with unlimited application versatility and ample payload configuration flexibility, the NASC Teros™ is a Medium Altitude Long Endurance (MALE) UAV with a gross take-off weight of 1,800 lbs. and a payload weight as high as 450 lbs. Its flexible design and “Plug and Play” capability enables the Teros to carry multiple payloads simultaneously at high altitude for long periods of time. Teros also offers substantial internal volume, wing store locations, and electrical power for large and complex payloads. Multi-mission capable, Teros is suitable for a wide range of military, industrial, and commercial applications. Teros provides excellent range and endurance for more demanding missions and has the strength and power to carry and deploy full-sized payloads and equipment.



Teros applications and payloads include, but are not limited to, the following:

Aerial Surveillance/Surveying with Turret-based Digital EO, IR (Thermal Camera) and Hyperspectral Imagers

- Disaster Response & Damage Assessment
- Law Enforcement/First Response
- Search and Rescue
- Fire Mapping
- Large Area Agriculture & Livestock Monitoring
- Natural Resource Management
- Electrical Utility Line Security and Monitoring
- Wildlife Conservation
- Emergency Delivery

Payload/Sensor Research & Development

- Turret Systems
- EO/IR Camera Sensors
- Synthetic Aperture Radar Systems (SAR)
- Microwave Imaging Systems
- Laser Scanning Systems

Communication and Communication Relay Platforms

- High Data Rate Software Defined Microwave Radio Systems
- Microwave Power Repeater Systems
- Airborne Cellular Base Station
- COMINT/SIGINT Systems

Laser Scanning Systems

- Geological & Terrain Mapping
- Oil, Gas and Mineral Exploration
- Utility Line Security and Monitoring

LIDAR Chemical Detection and Atmospheric Probing

- Environmental/Pollution Monitoring
- Large Area Insect Spraying
- Meteorological/Climate Research

DESIGN HISTORY

The NASC Teros™ is a Group 4 UAS designed to be operated and fully integrated into the National Airspace System. Teros can fly the programmed mission autonomously and seamlessly within the air traffic control system. A primary goal for Teros was to produce an aircraft that achieved an exceptionally high level of Availability, Reliability, and Maintainability (ARM). The ARM process continues to be the primary evaluation criteria for all spiral upgrades, maintenance methods, and procedures.

The Teros utilizes a proven motor glider airframe by Sonex Aerospace. The Sonex design provides an extraordinarily rugged aircraft with a very low cost per flight hour and an exceptionally low overall life-cycle cost. The airframe has logged thousands of trouble-free flight hours including soaring, cross country, and aerobatic flight since its introduction in 2003. Now engineered into the Teros, this reliable UAV integrates critical redundant flight control systems and a smart electrical system to prevent complex failures. The surprisingly agile Teros features robust construction and durability without sacrificing its lightweight design. With short takeoff and landing capability, fast field assembly, rapid servicing, and autonomous flight operation, Teros is a highly versatile and highly capable aerial platform.

Following the rigorous AS9100D Quality Control Program, Teros was built to FAA Part 23 (structure and systems) and MIL-F-83691 (flight characteristics) standards to the maximum extent possible. Adherence to these criteria has resulted in the highest possible level of availability and reliability.

OPERATIONAL COMMAND

The Teros UAV is compatible with the NASC Mobile Operations Center (MOC). The MOC contains the Ground Control System (GCS), a complete maintenance workshop, and storage/transport for the aircraft. Teros is also compatible with the NASC Portable Operations Center (POC). This Piccolo interface software-based ground control station enables fully autonomous or manual UAV flight operations.

Teros can be assembled and ready for flight by a 4-person team in less than one hour and disassembled and stored inside the MOC in less than 30 minutes. NASC can provide turnkey aircraft complete with flight crew training or NASC operation of customer owned assets, or combination of both. All NASC aircraft are available with certified OEM Operator Training Programs for flight and maintenance. NASC offers complete life cycle support upon request.



With only a crew of four, the Teros can complete many of the same missions that usually require a crew of 20 or more. Despite being a large UAS airframe, Teros is designed for trailer transport with easily removable wings.

The NASC Teros™ is the proven solution when you require a truly rugged, medium-altitude, long-endurance UAV.



OVERALL SPECIFICATIONS

General Specifications

A: Length	20' (6m)
B: Wingspan, High Altitude	45' 8" (13.9m)
Wingspan, Normal Ops	39' 4" (12m)
C: Height, Tail	6' 10" (2m)
D: Width of Fuselage	3' 4" (1m)
Engine	Lycoming IO235 FADEC, 115 HP
Fuel Capacity	50-70 gal. (189-265L)
Empty Weight	955 lbs.* (433kg)*
Gross Weight	1,800 lbs. (816.5kg) High Altitude 1,200 lbs. (544.3kg) Normal

Payload Specifications

Max. Payload Weight	250-450 lbs.* (113-204kg)
Payload Bay Volume	38 Cu.Ft. (1.07m ³)
Payload Power Available	2500 Watts Max.

Wing Stores

Wing Stores (Six Stations)	35 lbs. (15.9kg) per station
Max. Wing Tip Weight	35 lbs. (15.9kg)

Electrical Power

28VDC	2800W (opt. 3920)
12 VDC	240W

All Weather Equipment

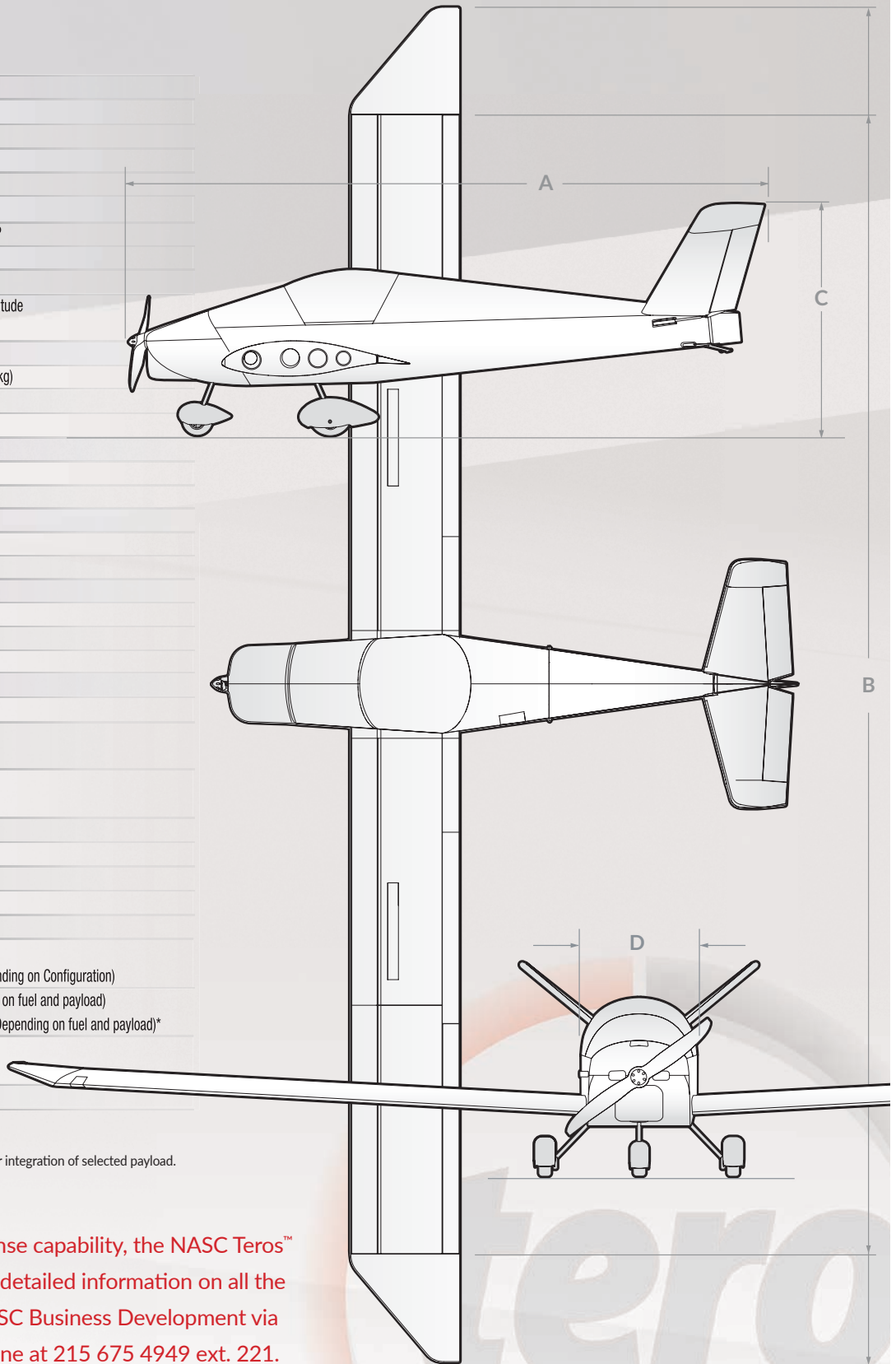
Wing	Segmented, Electric
Prop	Hot Prop, Electric
Antenna	Heated, Electric

Flight Performance

Max. Altitude	24,000+ ft. (7,315m) MSL*
Max Speed	105 Kts* Sea Level 115 Kts* 8,000 ft. (2,438m)
Loiter Speed	55 Kts Sea Level 61 Kts 20,000 ft. (6,096m)
Stall Speed	44 Kts
Glide Ratio	24:1
Glide Range	>90 SM @ Max. Altitude
Takeoff Distance	400 ft.* (122m)
Landing Distance	600 ft. (183m)
Rate of Climb 1,500 lbs. (680kg)	1,100 FPM (335MPM)
1,100 lbs (499kg)	1,525 FPM (465MPM) (Depending on Configuration)
Endurance	20 Hours Sea Level (Depending on fuel and payload) 24 Hours 24,000 ft. (7,315m) (Depending on fuel and payload)*
Range	347 nm Basic Fuel 1,490 nm Extended Fuel
Acceleration Limits	+6G to -3G

+ Dependent on payload weight.

* Estimated - Actual value dependent on performance and/or integration of selected payload.



Surprisingly inexpensive for its immense capability, the NASC Teros™ is available for purchase or lease. For detailed information on all the Teros has to offer, please contact NASC Business Development via email at Busdev@nasc.com or by phone at 215 675 4949 ext. 221.

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THE NASC STORY

Since 1977, NASC has provided innovative solutions to the Department of Defense, federal research institutions, and the commercial sector. Our specialized products, support, and services are currently being used in multiple operational theaters around the world. NASC is proud to have delivered an extremely high level of quality and reliability to the Unmanned Aircraft Systems industry since the year 2000. NASC offers UAS development, manufacturing, flight services, flight training, support, service, and maintenance. In addition to advanced product development capabilities, our hard-won expertise allows an unmatched level of in-the-field operational support by NASC operators and NASC trained customer crews. Other NASC areas of expertise include ground control stations, advanced acoustics, persistent surveillance systems, air vehicle technology, fires training and doctrine, testing and evaluation, and information technology services.

NASC IS PROUD TO HAVE SERVED THE FOLLOWING CUSTOMERS

- Naval Air Warfare Center Aircraft and Weapons Division
- Naval Air Systems Command
- Space and Naval Warfare Systems Command
- U.S. Naval Research Laboratory
- Office of Naval Research
- Sandia National Laboratories
- Federally Funded Research and Development Centers
- Air Force Research Laboratory
- Georgia Tech Research Institute
- Mississippi State University
- University of Maryland
- Department of Homeland Security
- U.S. Air Force
- Department of the Army
- U.S. Marine Corps
- NASA

For detailed information on the NASC Teros™, please contact NASC Business Development via email at Busdev@nasc.com or by phone at 215 675 4949 ext. 221



"Quality - Responsiveness - Integrity"
www.nasc.com

