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## NEWS RELEASE

### SEAPLANE UAV: WARRIOR'S GULL 36 HEADS FOR THE OPEN SEA



GULL 36

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#### GULL 36 - INTRODUCTION

Warrior (Aero-Marine) Ltd has commenced flying of the first 4.0m span GULL 36 UAV in the English Channel.

This is the first formal work achieved by the new generation of stepless seaplane hulls developed by Warrior. These patented designs reflect the revolution in slender-hulled surface craft design in the last 20 years, improving performance and enabling Warrior's seaplanes to handle twice as large waves as equivalent seaplanes.

James Labouchere, CEO states:

“Both the hull and configuration contribute to the GULL working effectively in common sea conditions. The wave-piercing ability enables useful taxi speeds for surface operations and the GULL uses wave profiles to its advantage for take-off.”

New opportunities arise from the GULL combining boat functions and aircraft cruise performance, and switching spontaneously between aerial and surface functions. This combination enables surface work to be achieved at higher speeds than any vessel, and greater effect is won by the use of aerial detection and reconnaissance during transit.

These attributes offer exceptional capabilities for sampling, persistent tracking and observation of surface and subsurface targets. They will also enable fast remote insertion/extraction of small secondary unmanned surface and underwater vessels.

Combined with its use from lake, river and shore, and dirt strips with amphibious gear, the GULL is expected to achieve tasks that currently need multiple vehicle types and complex communications. In doing so, the GULL will enable a robust multi-role solution with a minimum of communications and one-stage data processing, to then transmit usable information and instruction.

## **SHIP INTERFACE**

The interface of UAVs with ships remains generally problematic, requiring unwelcome launch and recovery equipment on deck. Solutions are also needed to enable UAVs to operate without imposing on other aerial assets and without requiring ships to change course or speed.

With UK Defence Technology Centre R&D funds, Warrior has developed and trialled, at reduced scale, a towed-sled Launch and Recovery System, SledLARS. The SledLARS can be launched and retrieved from either the beam or stern of a parent vessel and can automatically release and recover a fast-taxiing seaplane UAV (or a USV). This can be done while under high speed tow and on any point of wind.

This removes the need for deck-mounted equipment for either launch or recovery, enables the GULL to be operated from both small and large vessels and allows ships' other aerial activities to continue simultaneously with little or no interference.

## **OUTLOOK**

James Labouchere says:

“The GULL is the first UAV seaplane that has been conceived and developed for both the coastal and offshore environment. No other published concept that we have seen can even approach the GULL's combination of performance and seamanship.”

Warrior has designs into which manufacturers of mature UAV systems can integrate their engineering. This is anticipated by Warrior to be a low-risk process and the results will be systems that greatly simplify achieving maritime objectives, and bring valuable new objectives within reach.

Warrior is developing the GULL and related platform systems for open market licensing or partnering with system providers in both commercial and defence applications.

### **2008 Exhibitions:**

AUVSI 10-12 June  
Booth 940

ParcAberporth 25-26 June  
Booth 709 and outdoor display

## Contacts

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### *BACKGROUND*

*Warrior (Aero-Marine) Limited was incorporated in 1996 and is based in Salisbury, UK and Sanford, Maine USA. Warrior combines aircraft and high performance marine craft design and development skills. The Company has developed a series of new seaplane technologies including new patented hull forms. Development projects include a six-seat amphibious seaplane, the GULL UAV series and launch/recovery systems for ship use. Warrior is presently under contract to Cobham Group for a GULL 36 system and flying services of a second aircraft, for the ASTRAEA programme (please see notes below). Warrior is using systems and automation services from Blue Bear Systems Research Ltd.*

### *ASTRAEA NOTES*

*Cobham's Flight Refuelling Ltd has contracted Warrior (Aero-Marine) to supply a Gull 36 UAS as part of Cobham's contribution to the ASTRAEA programme*

*ASTRAEA is a national programme that focuses on the technologies, systems, facilities and procedures that will allow UAVs to operate safely and routinely in the UK. UAVs will bring real economic, environmental and security benefits in many areas and ASTRAEA will position the UK at the forefront of these opportunities. The programme includes representatives from the UK government, industry, academia and regional bodies, particularly as far as this aspect is concerned, the South West of England Regional Development Agency and the Technology Strategy Board.*

*Please visit [www.innovateuk.org](http://www.innovateuk.org) for further information.*