

## Bertin Technologies - Coriolis RECON



### GENERAL DESCRIPTION:

Coriolis RECON is a ruggedized bio-aerosol sampler, dedicated to CBRN Recon teams or first responders with quick deployment in case of an event with bio-threat suspicion. This unit is efficient, portable and has been ruggedized for use in an unfamiliar environment



### TECHNICAL DESCRIPTION:

Coriolis RECON is based on wet cyclonic technology and has been designed to collect low and high concentrations of airborne biological pathogens (viruses, bacteria, allergens, etc.) in the breathable range of 0.5-10 microns in size. The air flow rate is 600 liters/min. Air is first aspirated into a cone pre-filled with collection fluid in a whirling motion to form a vortex. Particles are pulled against the cone wall due to centrifugal force and separated from the air to be concentrated into the liquid. Sampling time can be set for up to 15 minutes or programmed for a long time collection period of up to 6 hours. After collection, the cone is capped and then sent to the lab for analysis. The collected sample is compatible with any type of molecular downstream application such as PCR, immunoassay, etc.

### CONTACT INFORMATION

Bertin Corp  
155 Gibbs Street, #533  
Rockville, MD 20850  
Attn: Antonin Duval  
www.bertin-corp.com

### COST

- \$32,400/system
- N/A/analysis

### Tier Selection

Final tier assignment is based on overall product score.

- Top Tier   
 ● Second Tier   
 ● Third Tier  
● Fourth Tier   
 ● Bottom Tier

### RANKINGS

	Biological	Chemical	Radiological
<b>FIELD USE System</b>			
<b>MOBILE Laboratory</b>			
<b>DIAGNOSTIC Laboratory</b>			
<b>ANALYTICAL Laboratory</b>			

### Notes

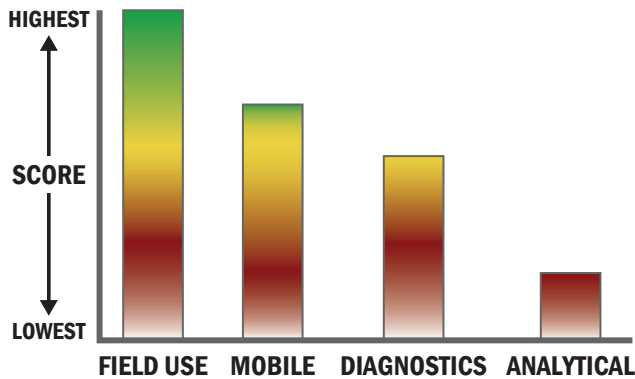
In use with the French military.

### Survey Source

Vendor Supplied Information

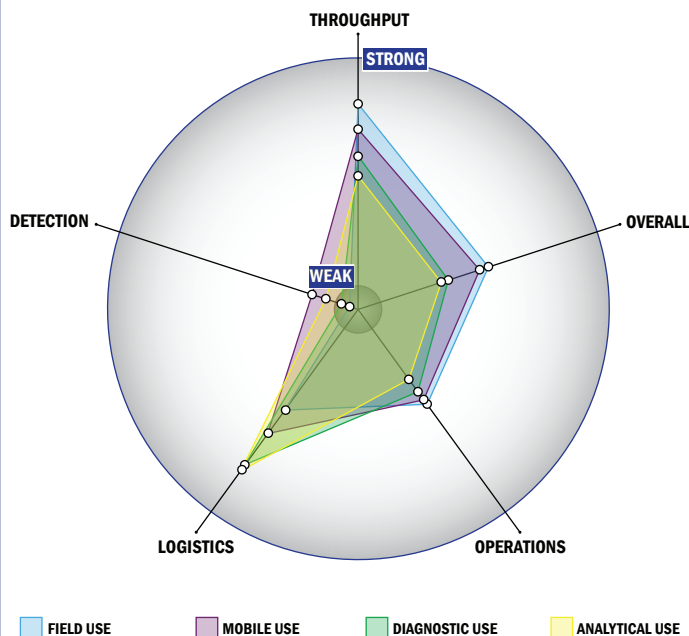
## Scoring Analysis

System scores are compared across the four scenarios and ranked from highest to lowest.



## Impact Chart

The Impact Chart is a spider graph representing specific categories and designed to give the reader a visual depiction of how a particular system is expected to operate across the four different scenarios. The score for each of the seven categories is presented as the percentage of the total possible score. Higher category scores extend the spokes of a graphic toward the outer edge of the chart. The area graphed for each of the four scenarios relates to how well the system performed in that scenario. Graphics for each of the four scenarios are super-imposed for ease of comparison.



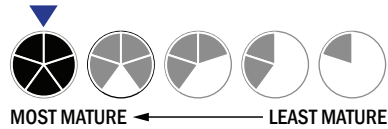
## Evaluation Criteria

### Throughput:

- Multiple samples, single tests/sample per run
- 95-32 samples every 2 hours
- The system or device is currently semi-automated
- Device or system is designed for a single use
- 0-1 solutions, buffer, eluents, and/or reagents
- 1 component
- Less than 5 minutes is required for set-up
- 1-2 steps are required for detection

### Logistics:

- Very brief (minutes-hours) training and minimal technical skills
- Between 5 and 25 kg
- System or device has 110V electrical requirement
- 1-2 hours battery life



### Operations:

- Components must be stored at room temperature (27 °C)
- Performance is not influenced by relative humidity
- Between 1 to 3 years shelf life
- Results cannot be viewed in real-time
- The system could be adapted to a fully autonomous system with some effort

### Detection:

- Greater than 250 µL

