

USE CASE



SNOWBIRD ATMOSPHERIC WATER GENERATION

Capability Focus: Decentralized Potable Water Production for Expeditionary Operations

CHALLENGE: Military units operating in remote or contested environments rely heavily on water resupply operations to sustain personnel. Traditional water logistics require transportation assets, fuel, manpower, and secure supply routes, all of which increase operational complexity and vulnerability.

For smaller, distributed units, maintaining a reliable supply of potable water can become a significant logistical burden. For larger formations, a disruption in water resupply can negatively impact mission effectiveness and troop readiness.

SOLUTION: The Snowbird Technologies **SAWG-150 Atmospheric Water Generator** provides a self-contained, expeditionary water source capable of producing potable drinking water directly from ambient air and collected rainwater, eliminating dependence on traditional raw water sources.

The trailer-mounted system integrates:

- Atmospheric Water Generator (AWG)
- Rainwater collection and purification
- Onboard water storage
- Integrated 20-kW power generation
- Mineralization filtration for enhanced water quality and taste



The system can be rapidly deployed and operational within minutes, providing immediate access to potable water in austere environments.

OPERATIONAL DEMONSTRATION | CSTX 2026: During the U.S Army Reserve Combat Support Training Exercise (CSTX) 2026 in Gulfport, Mississippi, the SAWG-150 was evaluated under field conditions as part of Operation Sentinel Justice. The unit was installed and producing water within minutes of arrival. Heavy rainfall during setup aided in the system generating, collecting, and treating approximately 63 gallons of water within the first hours of operation.

Throughout the exercise, the SAWG-150 achieved:

- Average water production exceeding 220 gallons per day
- Approximately 50% greater output than its published production rating
- A water-to-fuel efficiency ratio of approximately 9:1
- Successful potable water testing and continuous use by soldiers onsite
- Positive feedback from soldiers, assessors, and senior military leaders regarding water quality and operational utility

Following water quality validation, the SAWG-150 became an informational hydration station for personnel, with many soldiers repeatedly returning to refill canteens and Camelbaks. Feedback consistently indicated a preference for SAWG-produced water over existing field water sources.

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MISSION BENEFITS:

- **Reduce Logistics Burden** | By generating water at the point of need, the SAWG-150 reduces reliance on water transportation, storage, and distribution assets.
- **Increase Operational Resilience** | The system provides a decentralized water source that can continue supporting personnel even when traditional supply chains are delayed, degraded, or denied.
- **Support Distributed Operations** | With Army planning factors ranging from 3-8 gallons per soldier per day depending on conditions, the SAWG-150 can support platoon-sized elements independently while serving as a supplemental or redundant water source for larger formations.
- **Improve Readiness and Sustainment** | Reliable access to potable water helps maintain hydration, performance, and operational effectiveness in remote and austere environments.

RECOMMENDED EMPLOYMENT:

The SAWG-150 is ideally suited for:

- Platoon-sized expeditionary operations
- Forward operating bases
- Disaster relief and humanitarian assistance missions
- National Guard and Reserve deployments
- Special operations support
- Contested logistics environments
- Supplemental water production for company-sized and larger formations

KEY TAKEAWAY:

The CSTX 2026 demonstration validated the SAWG-150 as a practical, rapidly deployable water generation capability that can reduce logistical burdens, improve sustainment resilience, and provide reliable access to potable water wherever the mission requires. Assessment feedback further suggested positioning the SAWG-150 not only as a replacement for traditional water delivery in smaller units, but also as a force-multiplying supplemental capability for larger formations seeking greater redundancy and operational flexibility.

