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## WEATHER MODIFICATION, INC. ATMOSPHERIC RESOURCES MANAGEMENT TECHNOLOGIES FOR THE 21ST CENTURY

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### SEEDING EQUIPMENT

WMI offers a wide array of cloud seeding equipment for all purposes, both ground-based and airborne. WMI has either developed or completely re-designed a full suite of cloud seeding equipment for all your needs. Our equipment emphasizes functionality, safety, reliability, and ease of use.

#### AIRBORNE SEEDING EQUIPMENT

##### FLARE RACKS

###### Racks for Burn-in-Place Flares

WMI manufactures racks and firing-control systems adaptable to most aircraft types. Racks are designed for strength and safety, bolting directly to structural members of the wing.



This rack, affixed to a WMI Cheyenne II turboprop, is sporting 150 gram glaciogenic pyrotechnics produced by **Ice Crystal Engineering, LLC (ICE)**, of Davenport, ND. WMI uses exclusively ICE products. [Click to enlarge image.](#)



This rack has the ability to hold a dozen flares. As you can see from the photo above, the rack is able to hold both hygroscopic and glaciogenic flares. The rack is easy to convert with minimal ground time. [Click to enlarge image.](#)

###### Racks for Ejectable Flares



WMI racks for ejectable flares are mounted on the belly of the aircraft fuselage. Each rack holds 102 cartridges. When fired, the pyrotechnic is ignited and ejected from the aircraft. In this configuration, the WMI Lear 35A is equipped with four 102-count racks for ejectable glaciogenic pyrotechnics, a total of 408 flares. [Click to enlarge image.](#)

#### GROUND-BASED SEEDING EQUIPMENT

##### SOLUTION-BURNING ICE NUCLEI GENERATORS

WMI has designed state of the art ground based silver iodide generators for seeding orographic clouds. The generators burn a mixture of acetone and silver iodide that produce a silver iodide plume which is ingested by the cloud.

There are two types of Ground-Based Generators, the **Remote Ground-Based Generator** and the **Manual Ground-Based Generator**.

The design of the **Remote Ground-Based Generator System** include the use of satellite technology integrated with the micro-processor for full automated control of the system. The user has, via modem, real-time control of the system, including access to the status of the system and the surrounding environment. Present surrounding weather information includes temperature, humidity, wind speed and direction, and ambient temperature. System Status information includes power source status and availability, flow condition and level of availability of seeding agents, and the temperature of the flame. System Control includes changing from a weak power source to a revitalized source, switching of individual valves, and ignition.



Data collection of various types is available at the customer's request. These units are designed to take the heavy abuse of storm systems that may pass over any region. They are constructed to take on large amounts of rime icing and operate under the most demanding of weather conditions.

The **Manual Ground-Based Generator System** is similar to a Remote System except there is no need for a satellite phone, microprocessor, constant power source, or weather data collection. This system is operated manually by a person "on-site" with switches and valves. Items can be added at the customer's request.

## GROUND-BASED SEEDING EQUIPMENT

### FLARE TREES



WMI offers the latest in ground-based pyrotechnic applications, specifically, the ground-based flare tree, or GBFT. Our GBFT incorporates a "tripod base", which provides exceptional stability in even the most extreme weather conditions, and easy leveling.

Shown here, the WMI GBFT supports nine racks, each holding up to 12 glaciogenic or hygroscopic flares. The GBFT can be configured for either manual or remote-controlled operation. The remotely-controlled GBFTs are controllable by either cellular or satellite telephone, depending upon availability of reliable service at the site. Local power is provided by deep-cycle batteries, recharged by solar panel. In applications characterized by extended periods of cloud weather, thermoelectric generators can be used in lieu of the solar panels. Flares can be ignited as rapidly as the operator wishes, so multiple flares can be burned at one time if the situation warrants.

WMI custom builds GBFTs, so we can provide the capacity you need.

[Contact us](#) for pricing and detailed specifications.

The cloud seeding agents used by WMI are exclusively those manufactured by Ice Crystal Engineering, LLC, (ICE) of Davenport, North Dakota. All pyrotechnic formulations are thoroughly laboratory tested. The available formulations have been extensively field tested, and have demonstrated their reliability.



ICE manufactures the finest cloud seeding pyrotechnics in the world. For more information about Ice Crystal Engineering, LLC, please visit the [Ice Flares Website](#).

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