NOAA FORM 17-4 (4-81) — U.S. DEPARTMENT OF COMMERCE — NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Form Approved OMB Control No. 0648-0025
Expires 05/31/2027

INITIAL REPORT ON WEATHER MODIFICATION ACTIVITIES

This report is required by Public Law 92-205; 85 Stat. 735; 15 U.S.C. 330b. Knowing and willful violation of any rule adopted under the authority of Section 2 of Public Law 92-205 shall subject the person violating such rule to a fine of not more than $10,000, upon conviction thereof.

Complete in accordance with instructions on reverse and forward one copy to:
National Oceanic and Atmospheric Administration
Office of Oceanic and Atmospheric Research
1315 East-West Highway, WWMC-3, Rm 11216
Silver Spring, MD 20910

1. PROJECT OR ACTIVITY DESIGNATION, IF ANY
PO25001

2. DATES OF PROJECT
a. DATE FIRST ACTUAL WEATHER MODIFICATION ACTIVITY IS TO BE UNDERTAKEN: 09/01/2026
b. EXPECTED TERMINATION DATE OF WEATHER MODIFICATION ACTIVITIES: 10/31/2026

3. PURPOSE OF PROJECT OR ACTIVITY
Rainfall enhancement

4. (a) SPONSOR

NAME	AFFILIATION	PHONE NUMBER	STREET ADDRESS	CITY	STATE	ZIP CODE
Rain Enhancement Technologies		339-222-6714	4851 Tiamami Trail N	Naples	FL	34103

4. (b) OPERATOR

NAME	AFFILIATION	PHONE NUMBER	STREET ADDRESS	CITY	STATE	ZIP CODE
Scott Morris	Rain Enhancement Techno		4851 Tiamami Trail N	Naples	FL	34103

5. TARGET AND CONTROL AREAS (See Instructions)

TARGET AREA LOCATION	TARGET AREA SIZE OF AREA	CONTROL AREA LOCATION	CONTROL AREA SIZE OF AREA
Gill, Weld Co, CO	90 SQ. MI	Weld Co, CO	280 SQ. MI

6. DESCRIPTION OF WEATHER MODIFICATION APPARATUS, MODIFICATION AGENTS AND THEIR DISPERSAL RATES, THE TECHNIQUES EMPLOYED, ETC. (See Instructions)

A ground-based ionizer will provide a source of negatively-charged ions that are carried by atmospheric currents up to cloud base. No chemicals are released into the environment during this process. The ions activate additional cloud condensation nuclei and encourage an increased efficiency of droplet coalescence. Precipitation is enhanced downwind of the ground-based ionizer over an area extending approximately 20 miles away and 9 miles wide, in a 'triangle' type shape with the ionization unit being a point source emitter..

7. LOG BOOKS *Enter name, affiliation, address, and telephone number of responsible individual from whom log books or other records may be obtained.*

NAME	AFFILIATION	PHONE NUMBER	STREET ADDRESS	CITY	STATE	ZIP CODE
Scott Morris	Rain Enhancement Technologies	339-222-6714	4851 Tiamami Trail N	Naples	FL	34103

8. SAFETY AND ENVIRONMENT

☐ YES	☑ NO	Has an Environmental Impact Statement, Federal or State, been filed? If yes, please furnish a copy as applicable.
☑ YES	☐ NO	Have provisions been made to acquire the latest forecasts, advisories, warnings, etc., of the National Weather Service, Forest Service, or others when issued prior to and during operations? If yes, please specify on a separate sheet.
☑ YES	☐ NO	Have any safety procedures (*operational constraints, provisions for suspension of operations, monitoring methods, etc.*) and any environmental guidelines (*related to the possible effects of the operations*) been included in the operational plans? If yes, please furnish copies or a description of the specific procedures and guidelines.

9. OPTIONAL REMARKS (See instructions. Use Separate Sheet).

CERTIFICATION: I certify that all statements in this report on this weather modification project are complete and correct to the best of my knowledge and are made in good faith.

NAME OF REPORTING PERSON	AFFILIATION	SIGNATURE	STREET ADDRESS	OFFICIAL TITLE	CITY	STATE	ZIP CODE	DATE	PHONE NUMBER
Jeffrey Chagnon	Rain Enhancement Technologies	Jeffrey M. Chagnon	4851 Tiamami Trail N	Senior Meteorologist	Naples	FL	34103	09/01/2026	339-222-6714

INSTRUCTIONS FOR INITIAL REPORT ON WEATHER MODIFICATION ACTIVITIES

One completed copy of this form is to be received 10 days* or more prior to actual modification activities. A NOAA file number will be assigned by the Administrator after receipt of the initial report for each project or activity.

A supplemental report in letter form referring to the appropriate NOAA file number must be made to the Administrator if the "Initial Report" is found to contain any material inaccuracies, misstatements, omissions, or if there are changes in plans for the project or activity.

*For exceptions, see Sections 908.4(b) and (c), Part 908 of Title 15, Code of Federal Regulations.

Item 1 Enter designation, if any, used by operator for the project or activity.

Item 2 Enter: (a) Date first actual weather modification activity is to be undertaken;
(b) Date on which final weather modification activity is expected to occur.

Item 3 Enter the purposes of the project or activity: e.g., rainfall increase, hail suppression, cold fog dispersal, etc.

Item 4 Enter: (a) Name, phone number, affiliation, and address of the primary person for whom the project is to be performed (sponsor).
(b) Name, phone number, affiliation, and address of the person primarily responsible for carrying out the project (operator).

Item 5 A map should be attached showing size and location of target area, control area, coded number and location of each item of ground-based weather modification apparatus and coded number and location of key rain gauges, radars, or other precipitation measuring devices. Also show location of airport for airborne operations.

Item 6 Describe the weather modification apparatus, modification agents, and the techniques to be used. This would include type of ground or airborne apparatus to be used, type of modification material to be dispensed, rate of dispensing material in grams per hour or other appropriate units, type of precipitation gauges to be used in target and control areas, and any other pertinent information such as type of radars, type of aircraft to be used, techniques to be employed (e.g., cloud-based seeding at 10,000 feet msl).

Item 7 List name, phone number, affiliation, and address of the responsible individual from whom log books or other records may be obtained.

Item 8 Provide applicable answers to questions as indicated.

Item 9 This item is to permit the reporting person to include any information not covered by items 1 through 8 but which he feels is significant or of interest. It is also to be used to include any information not covered elsewhere that the Administrator may request.

INFORMATION PROVIDED UNDER THE PROVISIONS
OF THE
PAPERWORK REDUCTION ACT OF 1995

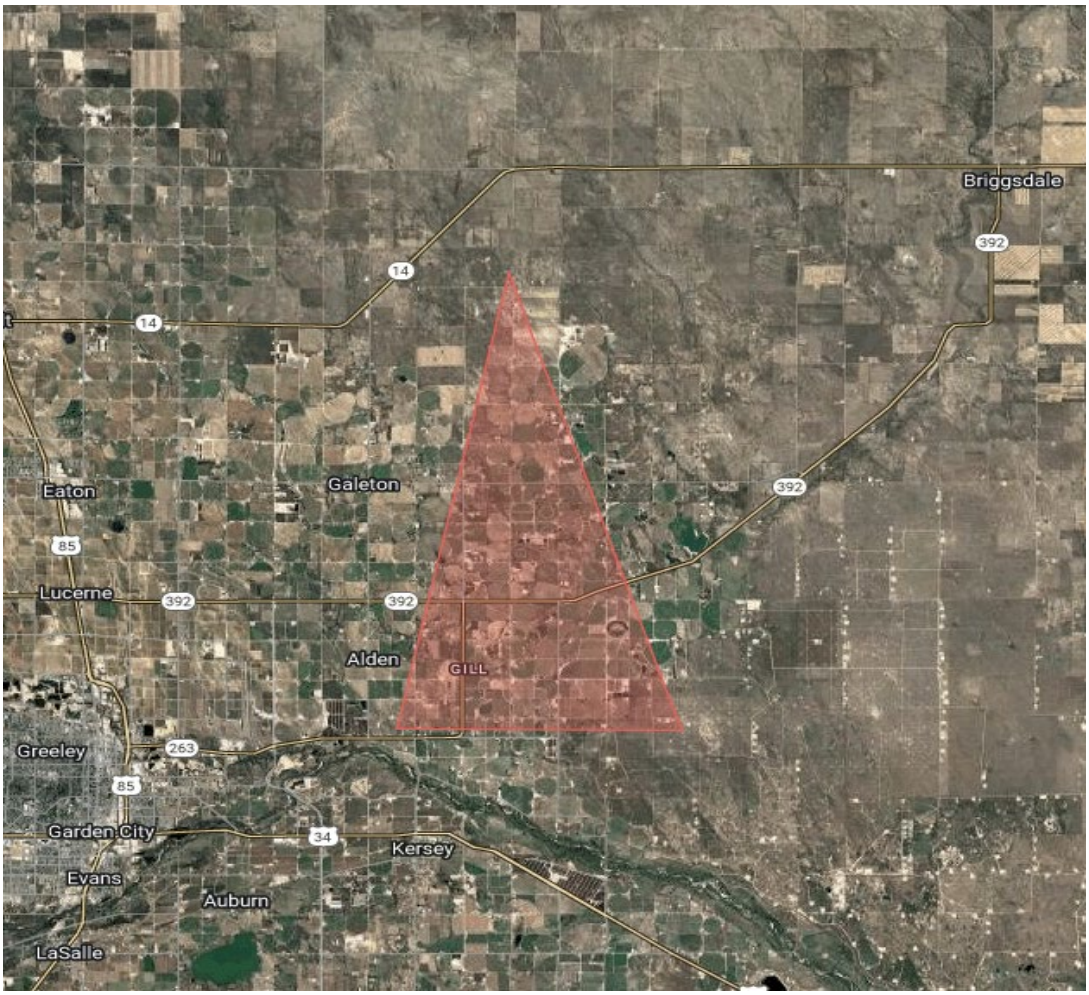
The Paperwork Reduction Act o f1995 requires that individuals or organizations be provided with the following information if they provide information on paper forms which are collected by the Federal Government.

1. Public Law 92-205, enacted December 18, 1971 (amended by Public Law 94-490, Section 6(b), October 15, 1976) requires that all non-federal weather modification activities in the United States and its territories be reported to the Secretary of Commerce. The National Oceanic and Atmospheric Administration has implemented the Act and the current reporting requirements are published in the Code of Federal Regulations (15 CFR 908).

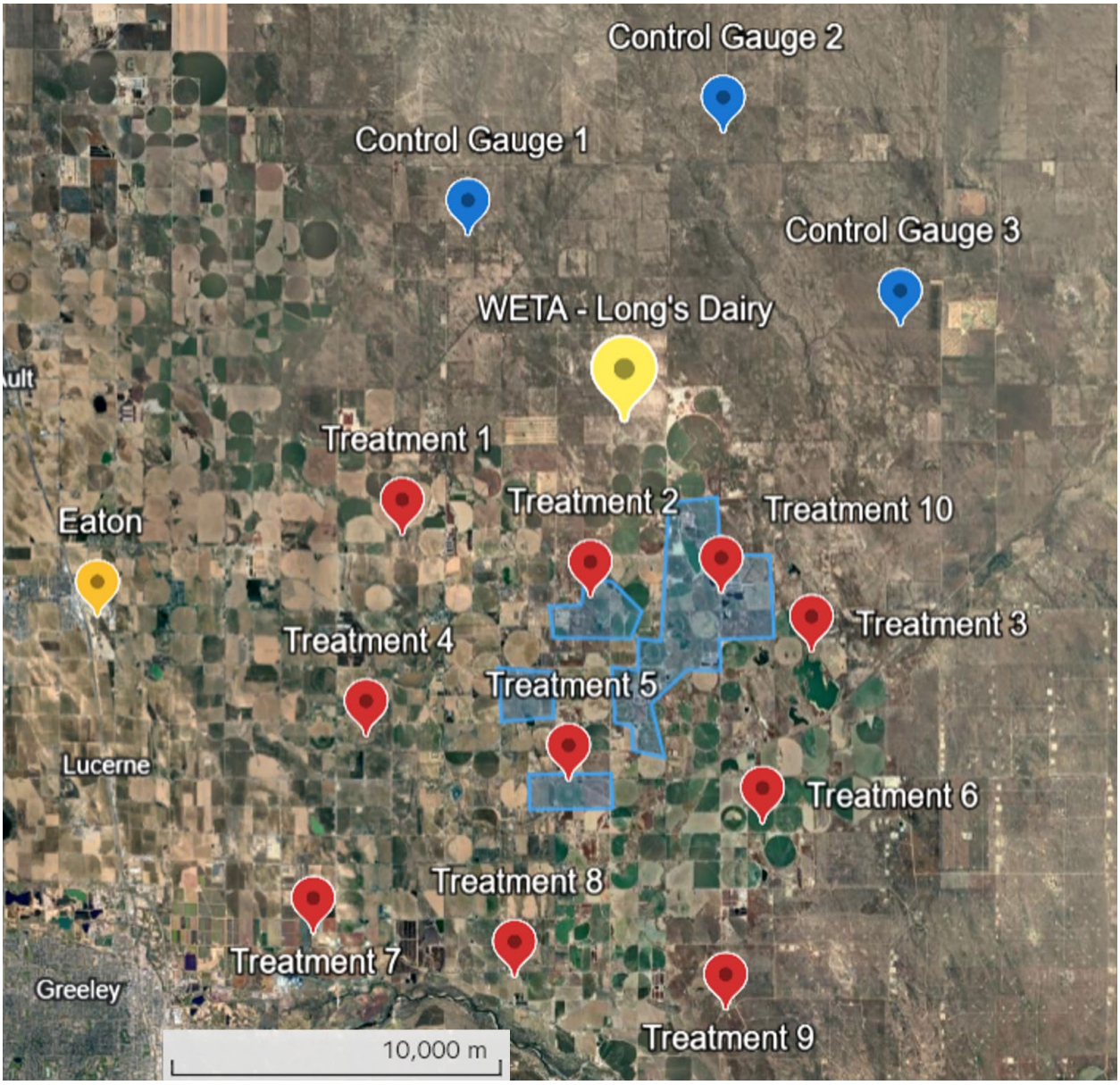
2. The intent of the program is to increase expertise in the field of weather modification, to allow scientists and other concerned persons to have access to information on current and past efforts at weather modification, to help avoid unneeded and wasteful duplications, to aid in preventing territorial overlapping of weather modification operations, to provide data to assess possible harmful or dangerous activities, and to furnish information to check both desirable and undesirable atmospheric changes against records of weather modification efforts. To meet this objective, information is collected on the location and size of the target area, names and addresses of sponsors and operators, beginning and ending dates of the project, specific purpose, description of apparatus and seeding agents to be used, number of days of operations, number of hours of operations of each type of weather modification apparatus, and total amount of seeing agent used.

3. A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995 unless the information collection has a currently valid OMB Control Number. The approved OMB Control Number for this information collection is 0648-0025. Without this approval, we could not conduct this information collection. Public reporting for this information collection is estimated to be approximately 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. All responses to this information collection are mandatory pursuant to Public Law 92-205, enacted December 18, 1971 (amended by Public Law 94-490, Section 6(b), October 15, 1976). Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the OAR Weather Program Office at Weather.Modification@noaa.gov.

Planned coverage area:



Rain Gauge and Instrumentation Map:



Operating Criteria, Suspension Criteria, and Timeline

Three key criteria will be evaluated to determine the suitability for future operations. The criteria are as follows:

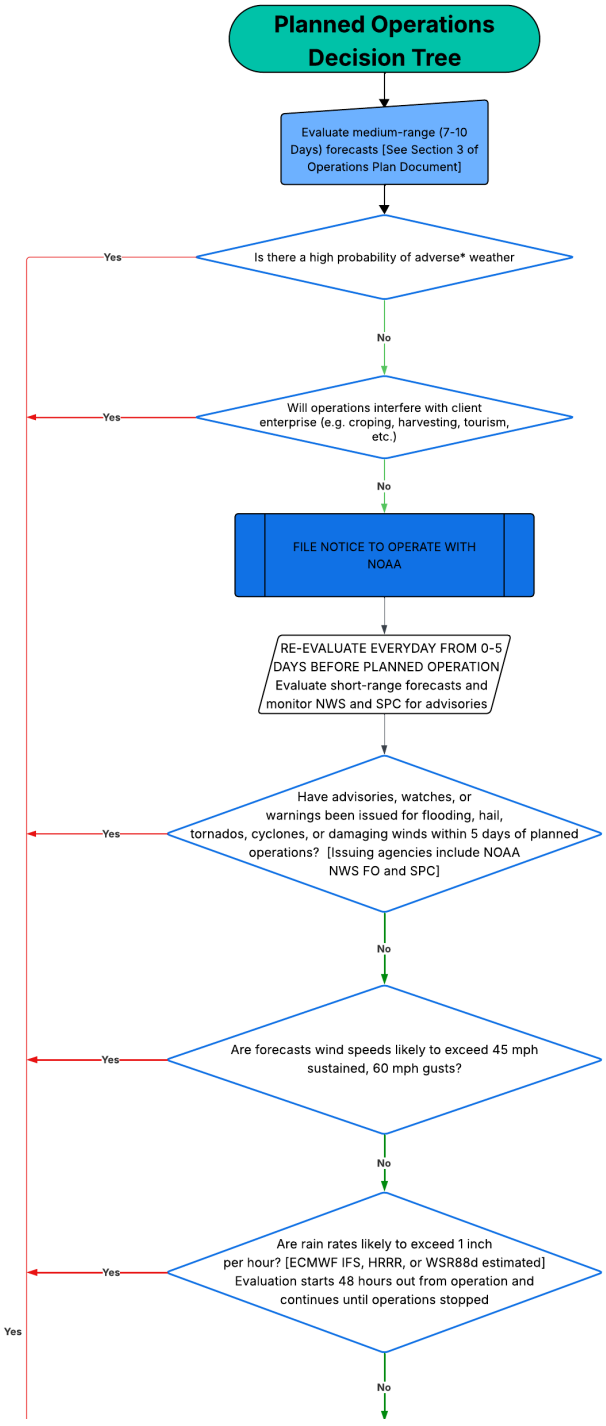
1. A possibility of precipitation
2. A favorable wind direction
3. The absence of adverse conditions

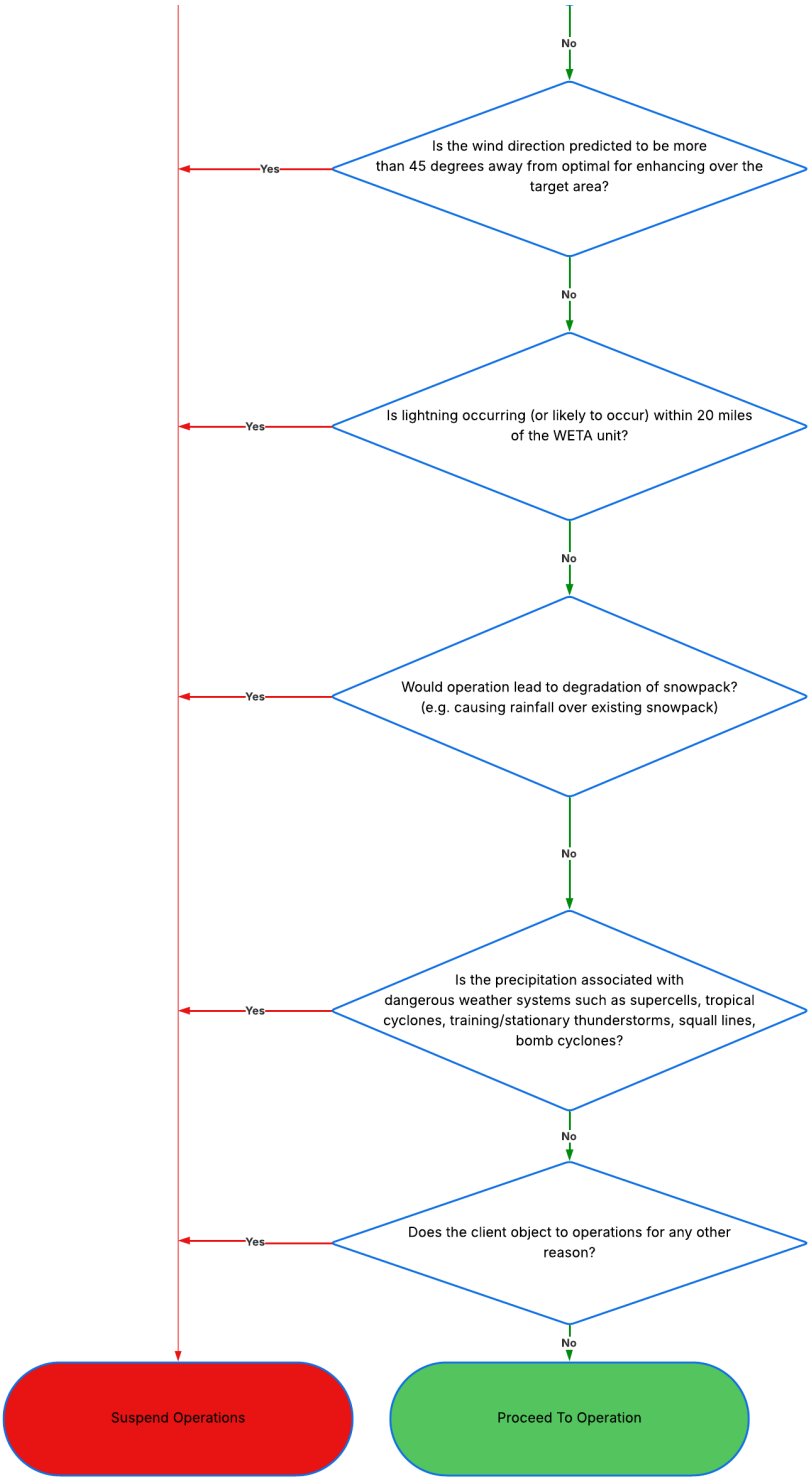
RET will suspend operations if there is any possibility that operations would result in undesirable consequences or create the perception thereof. Undesirable consequences include flooding, hail, extreme winds, negative impacts on public or private assets, interference with other client-defined operations (e.g., agricultural activities, tourism, etc.), degradation of snowpack, and negative impacts on the WETA unit (and any of its components). Given the site-specific nature of what constitutes a negative impact, some suspension criteria will need to be tailored to each site. Table 1 details the suspension criteria that will be adopted during RET's operations. Figure 1 presents the decision-making flowchart that will be used to inform decisions to operate or suspend operations.

TABLE 1

Condition	Suspension Criterion	Justification
Precipitation Rate	> 0.5 inches per hour	Flash flooding potential
Wind speeds/gusts	> 45 mph sustained/ 60 mph gusts	Target overshoot
Wind direction	> 45 degrees from optimal	Target miss
NWS or SPC forecasts	Any advisories, watches, or warnings of severe weather or flooding	High-impact weather potential
Convective Available Potential Energy (CAPE)	> 1500 J/kg	Severe thunderstorm potential
Vertically-integrated liquid water (VILW)	> 2 inches	Excessive rainfall potential
Temperature and humidity at WETA site	Defined by Chief Technical Officer	WETA performance
Freezing level	Altitude lower below level of snowpack	Snowpack degradation
Lightning	Lightning occurring within 20 miles of WETA	Damage to WETA
Severe weather systems	Impacts expected from supercell thunderstorms, bomb cyclones, tropical cyclones, severe squall lines, derechos, stationary rain cells, or training rain cells	High probability of severe weather and/or flooding

FIGURE 1: Decision tree for informing RET operations, including the criteria for suspending operations.




No
Is the wind direction predicted to be more than 45 degrees away from optimal for enhancing over the target area?
Yes
No
Is lightning occurring (or likely to occur) within 20 miles of the WETA unit?
Yes
No
Would operation lead to degradation of snowpack? (e.g. causing rainfall over existing snowpack)
Yes
No
Is the precipitation associated with dangerous weather systems such as supercells, tropical cyclones, training/stationary thunderstorms, squall lines, bomb cyclones?
Yes
No
Does the client object to operations for any other reason?
Yes
No
Suspend Operations
Proceed To Operation

Forecasting products

At long lead times, weather forecasts are highly uncertain, but probabilistic forecasting systems are sufficiently reliable to identify the possibility of rainfall a week ahead. RET will analyze probabilistic forecasts from the European Centre for Medium Range Weather Forecasting (ECMWF) Ensemble Prediction System (EPS). Specific EPS products that will inform the decision to notify NOAA include the following:

1. The probability of precipitation at a grid point nearest to the target area,
2. A wind rose depicting the variance in wind directions among ensemble members,
3. A histogram of wind speed and maximum gusts,
4. A histogram of 24-hr minimum surface temperature
5. Severe weather metrics including peak rain rates, maximum Convective Available Potential Energy (CAPE), and maximum Vertically-Integrated Liquid Water (VILW).

A notice of intent to operate will be submitted to NOAA at least 10 days prior to an operating period if no suspension criteria have yet been met. After notice has been filed, forecasts must be monitored from 1-5 days prior to the event to determine if conditions remain suitable for operating or whether adverse conditions are likely to require a stop to operations. Decisions at these shorter lead times will be informed by high-resolution, deterministic numerical weather prediction (NWP) models, National Weather Service forecasts and advisories, as well as advisories from the Storm Prediction Center. The NWP model forecasts will be sources from NOAA's Global Forecasting System (GFS), the ECMWF Integrated Forecasting System (IFS), and NOAA's High-Resolution Rapid Refresh (HRRR) model.

The primary forecasting products that will inform decisions include the following:

1. Precipitation probability and amounts
2. Wind direction
3. Wind speed and max gusts
4. 24 hr minimum temperature
5. NWS or SPC advisories, watches, or warnings
6. Severe weather metrics (peak rain rate, CAPE, VILW)

In addition to these forecasting products, a decision to suspend operations will be made if ANY of the following conditions are observed:

1. Observed or nowcasted wind speed exceeds 45 mph and/or gusts exceed 60 mph.
2. Lightning is observed or expected within 20 miles of the WETA unit.
3. Advisories, watches, or warnings have been issues by NWS or SPC.

Procedure for suspending operations

RET will internally cease operations and use our remote logging to confirm there is no operation during that period. Under the most extreme events (e.g. possible hurricane, cyclone, earthquake etc.) RET staff will travel to site and manually isolate power supply to the high voltage generator that provides the ION source.