



1.0 Standards and Ethics Background

The Weather Modification Association (WMA) has adopted a statement on standards and ethics to further the association's purposes, which include but are not limited to:

Promoting research, development, understanding and application of weather modification for beneficial uses, and

Identifying and encouraging the highest standards of conduct in all weather modification activities

Terms of Reference

All WMA members are expected to act in ways that promote the purposes of the WMA.- Additionally, those members, hereinafter referred to as operators or managers, who direct or participate in field experiments or operations in weather modification, have a special obligation to protect the interests of the WMA, their profession, and the general public.

The WMA sponsors a program to certify individuals as qualified to execute field experiments or operations in weather modification. Certification is based upon work experience, technical knowledge, and personal character. In acting upon applications for certification or renewal, the Certification Board considers the degree to which each applicant has conformed to the Association's current policy on Standards and Ethics. Violation of this statement may be cause for the denial or revocation of certification.

Operators and managers are expected to comply with the following code of ethics, which covers their relationships with the general public, their clients, and the meteorological profession.

Version Voted on and Adopted by the Weather Modification Association in November 2024.



2.0 Code of Ethics

Background and Purpose

The Weather Modification Association (WMA) has adopted this statement on a) standards of conduct in projects and b) procedures for investigating allegations of misconduct of members to further the purposes of the Association, which include but are not limited to:

Encouraging and promoting the highest standards of conduct in weather modification activities; and

Identifying those measures which the WMA reserves the right to follow if/when members, operators, or managers clearly fail to conduct themselves in a manner that reflects the dignity and honor of the profession.

Standards and Ethics are critical to the integrity, reputation, and technical advancement of the profession in the conduct of weather modification activities, and enforcement thereof through membership in the WMA. The need to articulate more refined tenets of ethical practice is of primary concern to the Association. By reviewing and reiterating these principles and defining programmatic misconduct, ethical standards can be reinforced, and ambiguity can be reduced. By maintaining procedures for inquiry and investigation of allegations of misconduct, equitable treatment can be assured, and self-regulation of the WMA weather-modification community can be strengthened.

Scope

This policy and the associated procedures apply to all WMA members. All WMA members are expected to act in such a way as to promote the purposes of the WMA. Additionally, those members referred to in this document as operators or managers, who direct or participate in field experiments or operations in weather modification, have a special obligation to protect the interests of the WMA, the profession, and the public. The terms “operators” and “managers” apply to all WMA members who qualify as such regardless of if they are certified by the WMA.

The WMA has a program to certify individuals as qualified to execute or manage field experiments or operations in weather modification. Certification is based upon work experience, technical knowledge, and personal character. In acting upon applications for certification or renewal, the WMA Certification Board will consider the degree to which each applicant has conformed to the Code of Ethics prior to the award of certification. Violation of the Code of Ethics may be cause for denial, or revocation, of certification.



General Policy

The Weather Modification Association is committed to adhering to standards and ethics in the conduct of weather modification activities. Qualifications for membership in the WMA, as enumerated in its Bylaws (Section 2.2), reflect the beliefs and principles that underly these standards and ethics:

Members must desire to fulfill the purposes of the Corporation, as set forth in its Articles of Incorporation, and to promote the research, development, and understanding of weather modification for beneficial uses;

Members must encourage and promote the highest standards of conduct including certification of members qualified to conduct field experiments or operations in weather modification.

Members may be expected to assume an active role in the production and dissemination of policy statements concerning all aspects of weather modification; and

Members may be asked to contribute to the production of the Journal of Weather Modification.

Underlying the standards and ethics of the WMA is a commitment to the advancement of the science, technology, and practice of weather modification.

Ethical conduct by WMA members is critical to the maintenance and wellbeing of the weather modification profession.

Concepts of self-regulation and trustworthiness are essential and rest with individual members, and they include the standards of open communication, respect for the rights of others, honesty, fairness, objectivity, accuracy, and healthy skepticism.

This policy is intended to recognize and encourage, within the limits of good conduct, the freedom of members to pursue and compete for business in an ethical manner, to develop, and implement new approaches and methods, and to disseminate the results and findings of weather modification activities.

A policy, with well-defined procedures for addressing allegations of misconduct, is appropriate for the WMA to promote.

The rights of each member of the Association must be protected.

All members will be appropriately apprised of this policy and the necessity of ethical conduct in the profession.



All members must avoid misconduct as defined by this policy.

Relationships with the General Public

All members will conduct themselves in ways that reflect dignity and honor in the profession.

In the following, when the term operator or manager is used, the statements apply to both WMA certified and non-certified members. The terms operator and manager are defined in the WMA certification procedures.

The WMA certified operator or manager will comply with all laws and regulations pertaining to weather modification activities of the federal, state, and local governmental entities having jurisdiction in the areas where projects are conducted.

The operator or manager will not knowingly participate in activities that can reasonably be expected to be detrimental to the public welfare or contribute to hardship within operational areas.

The operator or manager will fully divulge to clients and potential clients, upon request, the nature of active seeding materials and seeding methods used.

The operator or manager will make a concerted effort to comply with requests (preferably written) from the client, the regulating agency, or the general public for information about field activities. Such efforts are not intended to impede the ability of the operator or manager to perform assigned tasks for the client.

Relationships with Clients

In the following, when the term operator or manager is used, the statements apply to both WMA-certified as well as non-WMA-certified members. WMA members are strongly encouraged to ensure all co-workers, contractors, stakeholders, sponsors, clients, and client representatives act in an ethical manner. When questionable behavior is discerned, members should follow the guidelines set forth below.

The operator or manager will not exaggerate his or her capabilities (or those of the organization he/she represents), nor guarantee particular outcomes. Claims regarding the probable effects of weather-modification projects should be compatible with such "Statements of Capabilities" as may be set forth by the WMA from time to time, unless the claims can be justified based on results published in a suitable format available for review.

Contracts where a bonus is paid for performance, such as "production" of rainfall over and above monthly normal or other arbitrary amounts, could be detrimental to the development of



a sound technology and are therefore not acceptable. The WMA’s practice of certifying weather modification operators and managers is aimed at fostering “the highest standards of conduct in weather modification programs, both research and operational.” It is recommended that those who are involved in the conduct of cloud seeding operations, research, weather forecasting, and feasibility and modeling studies, become certified by the WMA.

It is good professional practice for an operator or manager to provide clients with documentation on laboratory test results for seeding materials, to sponsor “open house” events for visiting operational sites, and to conduct in-the-field tests of seeding equipment and seeding materials to be used in the program.

It is good professional practice for an operator or manager to provide clients with the maintenance histories of critical equipment to be used in the operation, if requested.

It is good professional practice to have a discussion with clients about possible extra-area effects. (The known reports of such effects generally indicate attendant increases in precipitation.)

Relationships with Meteorological Profession

In the following, when the term operator or manager is used, the statements apply to both WMA certified and non-certified members.

The operator or manager will:

Conduct himself/herself in a manner to reflect dignity and honor upon the profession.

Stay informed of scientific and technological developments in the field of weather modification and will seek to incorporate improvements into operational and research programs whenever practical.

Endeavor to contribute new knowledge to the profession by making known significant results from operational and research programs.

Avoid taking credit for work done by others but will strive to give credit where such is due.

Avoid unjustly criticizing fellow workers or competitors in his profession but will refer to the Association any allegations of unethical practices on the part of other operators or managers.



Standards of Conduct for Specific Projects

In the following, when the term operator or manager is used, the statements apply to both WMA-certified as well as non-certified members.

Each project should have a set of clearly defined objectives. The operator or manager should provide as precise a statement as possible describing how the objectives are to be reached.

The operator or manager will not undertake work in a project area where serious conflicts might arise without taking steps to identify and correct such situations in advance.

The operator or manager will conduct each project in ways that minimize potential danger to the public and to the environment from the use of seeding devices, seeding agents, and other appurtenances of the trade. Examples of such safeguards include field-oriented feasibility studies, modeling and environmental impact studies, weather forecasting research conducted in conjunction with a weather modification program or by an entity that is or has been involved in such activities; regardless of whether they are actively involved in cloud seeding projects at the time.

Each project should be under the direction of a project manager with knowledge and experience in weather-modification field projects. The project manager should be available for real-time communications with field personnel and preferably be certified by the WMA.

The operator or manager will ensure that project personnel have adequate and appropriate weather data and information essential to the conduct of cloud-seeding operations and the efficient use of resources committed to the project.

The operator or manager will establish criteria and procedures for suspending operations in the face of impending severe weather to avoid contributing to, or appearing to contribute to, damaging weather situations. It is recognized that some types of projects, e.g., hail suppression, require operations during or in advance of certain types of severe-weather situations. The suspension criteria and procedures adopted will be specified in advance in written form, and these will consider existing water-management practices and flood control facilities for precipitation augmentation projects.

Evaluations of the effects of projects are strongly encouraged. Any limitations or constraints to evaluation will be reported to the client. If possible, procedures to be used in evaluations should be specified in advance.



3.0 Suspension or Revocation of WMA Certification or Membership

The WMA reserves the right to suspend or revoke the certification of any operator or manager, or the membership of any WMA member, who, in violating specific standards as listed (above) in the “Code of Ethics”:

fails to conduct himself or herself in a manner that reflects the dignity and honor of the profession as exemplified by adherence to the code of ethics, or

clearly fails to adhere to the criteria set out for WMA certification of operators and managers which includes non-certified operators or managers.

The procedure for investigating alleged misconduct established by this policy reflects the following:

The WMA will not consider complaints that involve primarily contractual disputes. Such issues are best settled through the appropriate courts. The WMA will consider complaints that involve a court settlement that indicates potential ethical violations by a member. Innocence is presumed until proven otherwise.

Confidentiality will be maintained throughout the investigative process. Information will be shared strictly on a need-to-know basis. Information will not be provided to third parties that may offer input (solicited or unsolicited) to the process but are not the named party or parties in the complaint.

An inquiry will be undertaken as a preliminary step to determine whether an investigation is warranted.

The process of verifying or resolving allegations of misconduct will provide for fair and reasonable action if an allegation is substantiated by the facts.

When allegations of misconduct have been made, the accused individual has the right to due process protection. The individual will be granted the opportunity to review and comment on the allegations, evidence, conclusions, and input from prospective witnesses.

Procedures for Reporting and Addressing Allegations of Misconduct

Background

In addressing allegations of misconduct, the provisions of this policy include fair, timely, and thorough consideration of any allegations, and initiation of actions recommended after consideration of allegations is complete. All records dealing with an allegation, its review, and disposition will be treated in strict confidence. The WMA executive board (Board) is responsible for investigating allegations of misconduct, maintaining the confidentiality of the investigative process, striving to ensure equity in the process, and providing timely, responsible action when misconduct has been alleged. A schedule is provided for conduct of all related activities, to facilitate orderly and expeditious resolution and to help ensure the rights of the individual(s) against whom an allegation(s) has been filed (the subject).



Reporting Allegations

Initially, members, clients, or the general public (complainant) should report cases of suspected misconduct to the chairperson of the WMA Standards and Ethics Committee or the WMA president. Reports of allegations will be filed with the WMA Executive Board (Board), either by the WMA president or by the Standards and Ethics Committee chairperson within five days of submission of the allegations. Allegations must be in writing, signed and dated by the complainant and, to the extent reasonably possible, specify the date, time, place, person or persons involved, and the circumstances of the alleged misconduct. Allegations of misconduct will be treated in a confidential manner.

Inquiry Committee

An inquiry is the initial step after an allegation is made. It is an informal process intended to assess the validity of the allegation and will be performed by an impartial committee, selected by the Board and consisting of no more than five (5) individuals. The Board will ensure that there are no significant conflicts of interest between any of the members of this committee and the complainant. Committee members shall select a chairperson who will guide and represent the committee. The inquiry committee (Committee), selected by the Board, will report its findings and recommendations to the Board. Their initial recommendation should address whether a) the allegation involves issues outside the WMA's purview, or b) is considered to be frivolous and may be dismissed, or c) appears to warrant more formal investigation.

The Board will then decide the next step(s). The Board may a) terminate the process as out of purview, b) declare the allegation frivolous and permit the complainant to withdraw the allegation or c) move the process to the formal investigative level. The subject of the allegation will be notified by the Board of the allegation(s) and the Committee's initial findings/recommendations. The Subject is guaranteed the opportunity to respond to the allegation(s).

Steps of Investigation

If the inquiry committee recommends to the Board that a full investigation be launched to resolve the matter the Board then creates a Fact-Finding (F-F) Committee with up to 7 members. Each prospective member shall certify to the president of the WMA, or substitute, that he/she is aware of no conflict of interest in accepting the appointment and can remain impartial throughout this phase of the investigation. The complainant and subject shall have the opportunity to object to any member of the F-F Committee. The Board may either accept, or reject, the objection. The F-F Committee membership will then be finalized.

Periodic updates on the progress in addressing the allegations will be provided to the WMA Standards and Ethics Committee members to ensure that the steps in forming an inquiry committee, F-F Committee (if one is formed), then the steps in the Schedule are followed. These updates will also be provided to the complainant and subject.

The complainant in question shall cooperate fully with the F-F Committee and produce any tangible information relevant to the issues raised in the complaint. The subject may submit to the F-F Committee any other relevant information and a written answer to the Complainant.



After the submission of tangible and pertinent evidence to the F-F Committee in instances where any issues or facts remain in dispute, a hearing may be held by the F-F Committee provided adequate notification is given to the individual(s) and provided the hearing will be held at a time and place convenient to the members of the F-F Committee and the individual(s) in question. This hearing and other meetings may be conducted through virtual media.

Any such hearing will be conducted by a special meeting of the Board. All procedures concerning inquiry findings, disposition, and appeal will be in strict accordance with this policy. Strict rules of evidence shall not apply, but the F-F Committee will accept information or evidence that is customarily relied upon by reasonable people in the conduct of important business.

The F-F Committee shall make written findings of fact and shall determine if the “subject(s)” has, in the conduct of their profession, clearly failed to conduct themselves in a manner that reflects the dignity and honor of the profession as defined in the Code of Ethics (section 2.0). In the case of WMA-certified individuals, the F-F Committee shall also report if any individual(s) has (have) failed deliberately to adhere to the criteria for the award of WMA Operator or Manager certification as set out previously. If the F-F Committee ascertains that the individual(s) has (have) failed in their conduct or adherence to the criteria as aforesaid, the F-F Committee will include, in its written decision, findings on the degree of the severity of the matter and a recommendation for the imposition of sanctions.

Disposition

The following sanctions may apply to members found to have committed an act or acts of deliberate misconduct: warning, reprimand, certification probation, permanent loss of certification, or expulsion from the WMA.

The written decision of the F-F Committee shall be sent with recommendations to the Board. The Board, after a review of the decision, shall determine the appropriate sanction and administer the same.



Schedule

The intent of the schedule shown below is a) to ensure that a person or group against whom a non-frivolous allegation has been filed (the Subject) is informed of the allegation in a timely manner and has a specified and adequate period to respond, and b) to provide a schedule known by all parties, to facilitate an orderly process and expeditious resolution of the issues.

**SCHEDULE* FOR ACTIONS REGARDING ALLEGATIONS OF MISCONDUCT
WEATHER MODIFICATION ASSOCIATION**

DAY	ACTIVITY
0	Written allegation(s) received by the WMA president or the chairperson of the Standards and Ethics Committee.
5	The WMA Board and chairperson of the WMA Standards and Ethics Committee (if not notified above) are notified of allegation(s).
15	Inquiry group (up to 5 members) named. The inquiry period begins.
20-25	If applicable, dismissal of frivolous allegation(s) or decision to continue Inquiry. Subject notified of allegation(s) if it is deemed non-frivolous and the Inquiry is to proceed.
45	The inquiry period ends with Inquiry group recommendation(s) submitted to Board. The board specifies formal Investigation is appropriate. Subject and complainant notified of Inquiry group recommendations and Board decision.
50	Fact-Finding Committee (up to 7 members) established. Subject notified of F-F Committee membership. Subject or complainant may challenge F-F Committee member(s) if desired.
60	F-F Committee finalized. Investigation period begins.
75	Deadline for subject responses/inputs.
75-90	Hearing held if requested by subject.
90	Investigation period ends.
105	F-F Committee provides written report and recommendations to Board.
120	Board rules and specifies/administers appropriate sanction(s) or dismisses allegation(s).

* The WMA Board reserves the right to modify or extend the schedule at its discretion as circumstances may require. Unreasonable time extensions of more than 20 days are prohibited. Issues may be resolved upon achieving mutual satisfaction of all parties involved, at any time during the process.