



## Standards and Ethics

The Weather Modification Association has adopted a statement on standards and ethics in order 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
- Encouraging and promoting the highest standards of conduct in all weather modification activities

## Terms of Reference

All WMA members are expected to act in such a way as to promote the purposes of the WMA. However, those members, hereinafter referred to as operators, 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 has a program to certify individuals as qualified to execute field experiments or operations in weather modification. For details, [click here](#). Certification is based upon experience, knowledge, and character. In considering applications for certification or renewal, the Certification Board will consider the degree to which each applicant has conformed to the present statement on standards and ethics. Violation of the statement on standards and ethics may be cause for the denial or revocation of certification.

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

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Version Voted on and Adopted by the Association in April, 2014  
Weather Modification Association

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## CODE OF ETHICS

Standards of Conduct in Projects and  
Procedures for Investigating Misconduct of Members



### *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 in order 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.

Ethics and standards in the conduct of weather modification activities, and enforcement thereof through membership in the WMA, are critical to the integrity, reputation, and technical advancement of the profession. 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 weather-modification community can be strengthened.

### *Scope*

The 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. Moreover, 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 general public. The term operators and managers apply to all WMA members that fall into this category regardless 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 experience, knowledge, and character. In considering 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 several fundamental beliefs and principles regarding ethics and standards in the conduct of weather modification activities. Some of the qualifications for membership in the WMA, as enumerated in its Bylaws (Section 2.2), reflect these beliefs and principles:

- a) Members must have a desire to fulfill the purposes of the Corporation as set forth in its Articles of Incorporation and have a desire to promote the research, development, and understanding of weather modification for beneficial uses;
- b) Members must encourage and promote the highest standards of conduct including certification of members qualified to execute field experiments or operations in weather modification;
- c) Members may be expected to assume an active role in the production and dissemination of policy statements concerning all aspects of weather modification;
- d) Members may be asked to contribute to the production of the Journal of Weather Modification.

Underlying the ethics and standards 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 foundation of the weather modification profession.

The concepts of self-regulation and trustworthiness, which are essential and rest with individual members, 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 boundaries of good conduct, the freedom of a member to pursue and compete for business in an ethical manner, develop, and implement new approaches and methods, and 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.

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

All members will be appropriately apprised regarding this policy and the issue 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 a manner to reflect dignity and honor on 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 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 in operational areas.

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

The operator or manager will make a concerted effort to comply with requests (preferably written) from the client, the regulating agency, and the general public for information about their field activities. Such efforts will not impair 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. Should they find questionable behavior then they 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 results in terms of future weather conditions. 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 on the basis of 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 purpose of the WMA practice of certifying weather modification operators and managers is to foster “the highest standards of conduct in weather modification programs of a research or operational nature.” 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 offer to clients the existing documentation on laboratory test results for seeding materials, “open house” events, as well as the option of 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 the maintenance histories of critical equipment to be used in the operation, if requested.

It is good professional practice to be up front about possible extra-area effects, which are possible. 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 on the profession.

The operator or manager will 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.

The operator or manager will endeavor to contribute new knowledge to the profession by making known significant results from operational and research programs.

The operator or manager will not knowingly take credit for work done by others, but will attempt to give credit where such is due.

The operator or manager will not unjustly criticize 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 of how the objectives are to be reached.

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

The operator or manager will conduct each project in such a way as to 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 projects include field oriented, feasibility studies, modeling studies, weather forecasting, research and others 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 personal direction of a project manager with knowledge and experience in weather-modification field projects. The project manager should be stationed as close as practicable to the area of operations. This project manager should 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 take into account existing water-management practices and flood control facilities.

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



### *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” and in the “Standards of Conduct for Specific Projects”:

1. fails to conduct himself, or herself, in a manner that reflects the dignity and honor of the profession as exemplified by adherence to the above, or
2. clearly fails to adhere to the criteria set out for WMA certification of operators and 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, evidences, and conclusions, and to hearing 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 Board of Directors (Board) is responsible for investigating allegations of misconduct, maintaining the confidentiality of the investigative process, striving to insure 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 insure the rights of the individual(s) against whom an Allegation has been filed (the Subject).

### Reporting Allegations

Initially, members, clients, or the general public should report cases of suspected misconduct to the Chairman of the WMA Ethics and Standards Committee or directly to the WMA President. Reports of allegations must ultimately be filed with the Board. 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 their findings and recommendations to the Board. Their initial recommendation should address whether a) the allegation involves issues outside the WMA's purview, or b) the allegation is considered to be frivolous and may be dismissed, or c) the allegation 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 investigation 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 decides whether or not to authorize an investigation to determine the extent of the issues raised in the allegation/complaint. If the Board's decision is affirmative, the Board then creates a Fact-Finding (F-F) Committee. 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 is then finalized.

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 committee any other relevant information and a written answer to the complainant.

After the submission of tangible 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 would be held at a time and place convenient to the members of the F-F Committee and the individual(s) in question.

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. In the case of WMA certified individuals, the F-F Committee would 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 Committee ascertains that the individual(s) has (have) failed in their conduct or adherence to the criteria as aforesaid, the Committee will include in its written decision its 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 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 in their judgment 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 known/ample period of time 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 received by WMA President or the Chair of the Standards and Ethics Committee.
5	WMA Board notified of Allegation.
15	Inquiry Group (n members) named. Inquiry period begins.
20-25	Dismissal of frivolous allegation or decision to continue Inquiry. Subject notified of Allegation if it is deemed non-frivolous and the Inquiry is to proceed.
45	Inquiry period ends with Inquiry Group recommendation to Board. Board specifies if formal Investigation is appropriate. Subject notified of Inquiry Group recommendation and Board decision.
50	Fact-Finding Committee (n members) established. Subject notified of F-F Committee membership. Subject 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.

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