

WEATHER MODIFICATION ASSOCIATION

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 standards of conduct in projects and procedures for investigating misconduct of members in order to further the purposes of the Association, which include but are not limited to:

1. Encouraging and promoting the highest standards of conduct in all weather modification activities; and,

2. Identifying those measures which the WMA reserves the right to follow if/when a member, operator, or manager clearly fails to conduct himself (herself) 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 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 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.

- 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 integrity of the WMA is consonant with the integrity of its members.
- 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, 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.

CODE OF ETHICS

Relationships with the General Public

1. The operator or manager will comply with all laws and regulations pertaining to weather modification activities of the federal, state, and local governmental units having jurisdiction in the areas where projects are conducted.
2. 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.
3. 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.
4. 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 his field activities. Such efforts will not impair the ability of the operator or manager to perform assigned tasks for the client.

Relationships with Clients

5. The operator or manager will not exaggerate his 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.

6. 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 should be contemplated only with utmost care if not altogether avoided.
7. 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 in such programs become certified by the WMA.
8. It is good professional practice for an operator or manager to offer to clients the existing documentation on laboratory field test results, "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.
9. It is good professional practice for an operator or manager to offer clients the maintenance histories of critical equipment to be used in the operation.
10. It is good professional practice to be up front about possible extra-area effects, which are possible. The known reports of such generally indicate small increases in precipitation.

Relationships with Meteorological Profession

11. The operator or manager will conduct himself/herself in a manner to reflect dignity and honor on the profession.
12. 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.
13. The operator or manager will endeavor to contribute new knowledge to the profession

by making known significant results from operational and research programs.

14. The operator or manager will not knowingly take credit for work done by others, but will attempt to give credit where such is due.
15. The operator or manager will not unjustly criticize fellow workers in his profession, but will refer to the Association information on apparently unethical practices on the part of other operators.

STANDARDS OF CONDUCT FOR SPECIFIC PROJECTS

1. 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.
2. 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.
3. The operator or manager will conduct each project in such a way as to minimize danger to the public and to the environment from the use of seeding devices, seeding agents, and other appurtenances of the trade.
4. Each project should be under the personal direction of a project scientist with knowledge and experience in weather-modification field projects. The project scientist should be stationed as close as practicable to the area of operations.
5. 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.
6. 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.

7. Evaluations of projects are strongly encouraged. Any limitations to evaluation will be reported to the client. Procedures to be used in evaluations should be specified in advance.

SUSPENSION OR REVOCATION

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, or (2) fails repeatedly to adhere to the criteria set out for WMA certification.

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

- Innocence is presumed until proven otherwise.
- Confidentiality will be maintained throughout the investigative process.
- 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 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 cross-examine witnesses.

It is understood that all WMA members will maintain adherence to professional codes, as well as requirements of program sponsors including guidelines and contracts.

Maintaining high ethical standards and the integrity of the profession promotes the quality of work by the WMA and its reputation with sponsors, the scientific community, and the general public.

GLOSSARY [DEFINITIONS]

Allegation: any written statement addressing the possibility of professional misconduct.

Complainant: the individual or group filing an allegation/complaint.

Ethical conduct: operational or managerial activity for all WMA members which (1) is based on honesty, openness, respect for others, fairness, and trust; and (2) adheres to the “Code of Ethics” and the “Standards of Conduct for Specific Projects”

Fabrication: making up data or results.

Falsification: changing or not reporting appropriate data or results (i.e. the purposeful omission of conflicting data or information with the intent to falsify results; deceptive selective reporting).

Inquiry: actions, including information gathering and fact-finding, to determine the potential validity of an allegation and whether an allegation warrants an investigation.

Investigation: a formal process including determination of the need for a hearing and, if required, a review by the Ethics and Standards Committee to consider the allegation(s).

Integrity: the quality or state of making sound programmatic decisions based on scientific principles; uprightness, honesty, and sincerity

Retaliation: any damaging action against a person who makes an allegation of misconduct (“whistle blower”) or reports information regarding alleged professional misconduct.

Manager: a person who may design, manage, evaluate and have overall responsibility for a weather modification program.

Misconduct: operational or managerial activity for all WMA members which does not adhere to the “Code of Ethics” and “Standards of Conduct for Specific Projects” and involves [means] (1) fabrication, falsification, or other serious deviation from commonly-accepted practices in proposing, carrying out, or reporting results from professional weather-modification activities; or (2) retaliation of any kind against a person who reported or provided information about suspected or alleged misconduct and who has not acted in bad faith.

Operator: a person who provides the day-to-day, on-site supervision of a weather modification field program.

Subject: the individual(s) against whom an allegation/claim has been filed.

PROCEDURES FOR REPORTING AND ADDRESSING ALLEGATIONS OF MISCONDUCT

Background

In addressing allegations of misconduct, the provisions of this policy include fair, swift, 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 is responsible for investigating allegations of misconduct, maintaining the confidentiality of the investigative process, insuring equality, 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 Ethics and Standards Committee or directly to the WMA President. Reports of allegations must ultimately be filed with the WMA Board of Directors. 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.

Committee's Inquiry

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 group, selected by the WMA Board of Directors and consisting of no more than four (4) individuals. The Inquiry Group, selected by the Board, will report their findings to the Board. The Board will then instruct the selected Group to either resolve the matter on their own using appropriate means, which may include conciliating with the parties, by permitting the complainant to voluntarily drop the complaint, or by permitting the person charged to accept voluntarily the disciplinary measures. The selected Inquiry Group may summarily dismiss a frivolous complaint with notice and a statement of reasons to the complainant. Otherwise, the one against whom a complaint is filed will be notified of the allegation(s) by the Group. The person charged by the allegation(s) is guaranteed the opportunity to respond to the allegation(s).

Steps of Investigation

If a formal investigation should be initiated based on the preliminary findings and lack of informal resolution, the following steps will be undertaken.

1. The Inquiry Group recommends to the WMA Board of Directors that a full investigation be launched to resolve the matter.
2. The WMA Board of Directors then decides whether or not to authorize an investigation to determine the extent of the issues raised in the complaint. If the Board's decision is affirmative, then the Board creates a Fact-Finding Committee. Each member so appointed 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 individual(s) in question shall have the opportunity to object to any member of the Fact-Finding Committee. The Board of Directors may either accept, or reject, the objection.

3. The individual(s) in question shall cooperate fully with the Fact-Finding Committee and produce any tangible information relevant to the issues raised in the complaint. The individual(s) may submit to the committee any other relevant information and a written answer to the complaint.
4. After the submission of tangible evidence to the Fact-Finding Committee in instances where any issues or facts remain in dispute, and upon written request by the individual(s) in question, a hearing shall be held by the Fact-Finding Committee provided adequate notification is given to the individual(s) in question and provided the hearing would be held at a time and place convenient to the members of the Fact-Finding Committee and the individual(s) in question.
5. The hearing will be conducted by a special meeting of the WMA Board of Directors. 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 Fact-Finding Committee will accept information or evidence that is customarily relied upon by reasonable people in the conduct of serious business.
6. The Fact-Finding Committee shall make written findings of fact and shall determine if the individual(s) in question has, in the conduct of his or her profession, clearly failed to conduct himself or herself in a manner that reflects the dignity and honor of the profession. The Fact-Finding Committee would also report if any individual(s) has(have) failed repeatedly to adhere to the criteria for the award of certification as set out previously. If the Committee ascertains that the individual(s) has(have) failed in his/her(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 Fact-Finding Committee shall be sent with recommendations to the Board of Directors of the WMA. The WMA Board of Directors, 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 insure that a person or group against whom a non-frivolous allegation has been filed (the Subject) is informed of the allegation in a timely fashion 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**

<u>DAY</u>	<u>ACTIVITY</u>
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.