

IMPROVE Steering Committee Meeting Summary **February 12, 1987**

A meeting of the IMPROVE Steering Committee was held at the National Park Service Wahweap Ranger Station north of Page, AZ, on February 12, 1987. The primary purpose of this meeting was to review the progress of the Winter Haze Intensive EXperiment (WHITEX) monitoring effort. Also discussed at this meeting were progress in deploying the long-term network, visibility policy status since the last meeting, and an update on various IMPROVE action items.

WHITEX

The impacts of an isolated pollutant source (the Navajo Generating Station) are being investigated in a SCENES special study known as WHITEX. The IMPROVE Steering Committee has several reasons for its interest in WHITEX. Aerosol samplers and transmissometers used in the WHITEX were loaned to that program by the steering group in order to promote the program and as a method to field test them before use in the IMPROVE long-term network. Also, if successful, the results of WHITEX may serve as a visibility impairment attribution study for Grand Canyon and Canyonlands National Parks. [A description of WHITEX is available in volume 1 number 2 of the SCENES Newsletter available from Chuck McDade (805) 388-5700.]

The steering group was briefed about the status of WHITEX. The weather has been atypical in that there has been more storms than normal, and winds have been from the northeast instead of the southwest. Visibility was better than for the same period in the previous seven years (entire period of record). The performance of instrumentation and field personnel has been excellent. Data from continuous monitoring instrumentation (e.g., nephelometer and transmissometer) were being reviewed in the field for all sites within 24 hours via the satellite data systems. This minimized system down time and allowed a more intelligent use of the aircraft monitoring capability. The particle samplers operated without any serious difficulties in spite of the fact that this represented their first field use. Tracer release at the Navajo Generating Station was also well done. Credit for the fantastic field performance was given to the groups that were involved in planning and conducting the study: University of California-Davis, Air Resource Specialists, Inc., Salt River Project, BYU, Drexel University, Sonoma Technology, and Los Alamos National Laboratory.

An outline of the schedule for the study after the field program ends was presented. An important concept in the development of the schedule is that only about 10 to 15 percent of the tracer samples collected as part of this program can be analyzed for budgetary reasons. To aid in the selection of samples for tracer analysis, the optical, particle, and meteorological data will be analyzed. It is anticipated that the nearly 5000 samples collected by the particle samplers will be analyzed by late spring or early summer. Allowing about one month to select air samples for tracer analysis and about four months for those analyses to be completed, it will be late fall before all the data are available to conduct the interpretive analysis. If everything proceeds as anticipated, study results (in draft form) may be available as early as late next winter.

The steering group toured the Glen Canyon site, the Navajo Generating Station, and by aircraft the south end of the study area. The afternoon of the tour had the poorest visibility measured thus far in the study (extinction coefficient > 0.06 inverse kilometers). The monitoring systems appeared to be fully operational and the field personnel enthusiastic in this, the fifth week of a six week study.

Long-Term Network

Deployment of equipment in the long-term network will proceed by the following schedule:

- Cameras - presently operating at all but one site, will be installed at the remaining site in spring 1987.
- Extinction monitors - presently at 2 sites, additional 10 installed in 1987, the remaining 8 installed in summer of 1988.
- Particle samplers - all will be installed in spring of 1987.

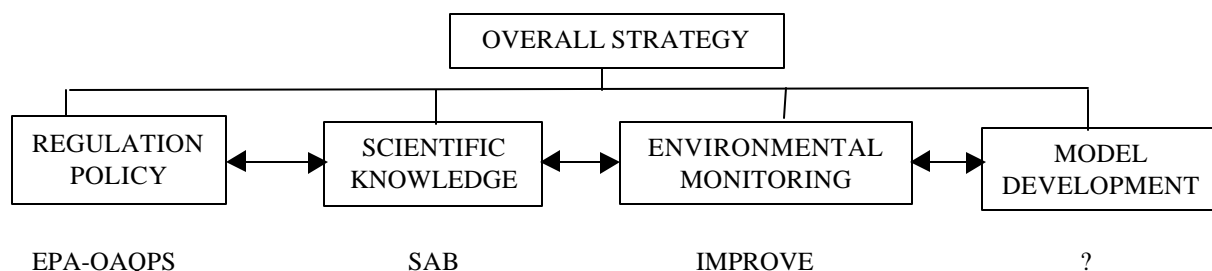
A site-specific deployment schedule is available through William Malm. In addition to the 20 IMPROVE sites, NPS is deploying up to 16 IMPROVE “look-alike” sites (same instrumentation and operating procedures). At all of the NPS sites, they are planning to operate an extra channel on the particle sampler with an impregnated filter to monitor sulfur dioxide with global background sensitivity.

The NPS will use competitive procurement to acquire the remaining extinction monitoring systems. IMPROVE steering committee members should contact Mark Scruggs, NPS (FTS 776-8770) if they are interested in participating on the technical evaluation panel.

Visibility Policy Update

Two topics were discussed: the Vermont State Implementation Plan and the Science Advisory Board Visibility Subcommittee. EPA approved the Vermont SIP for visibility protection in the Lye Brook Wilderness Area without comment on those sections having to do with regional haze impairment of that protected area. The argument for this was that existing regulation (phase I) does not address regional scale visibility impairment. There is some thought that Vermont may try to force EPA to speed up the development of phase II (regional visibility protection) through the courts.

A visibility subcommittee of the SAB will be established by EPA. It is anticipated that SAB can identify and organize visibility research needs to support existing regulation and to allow the development of future regulations (phase II). The steering committee discussed how the SAB fits into the government’s overall visibility protection strategy. The following diagram was developed at the meeting as a conceptual model for the overall strategy.



The overall strategy is shown broken into four discreet though related and interacting components. Beneath each is an indication of the responsible organization, if known. Not shown, but desperately needed, is an organization to coordinate and bring together these components into a coherent strategy. At the present time none of the organizations involved have identified the resources required to take on that task.

Miscellaneous Items

Two action items from previous IMPROVE steering committee meetings were discussed. An annual report on IMPROVE, originally scheduled for completion of the draft by 10/86, will be rescheduled for 6/87. Two meetings ago the steering group developed an outline on the informational requirements for the visibility protection program. NPS initiated the effort to write a report based on that outline. They planned to use an in-house and contractor staff to write the report. The effort is greater than originally thought. They tasked their contractor to write the modeling section, while they worked on the rest. To accelerate the process EPA offered to contribute about \$10K of research funds in the EPA/NPS interagency agreement to have NPS contract the writing of the "Existing Impairment Investigation" section of the report. Its hoped that this will result in a draft report (or at least some sections of the report) by mid-summer.

The status of participant contributed resources to IMPROVE for this year was discussed. The following contributions are anticipated: EPA-\$479,000; NPS-\$674,000 and field personnel support for 15 sites; FS-field personnel for 5 sites; and BLM-\$10,000 to \$12,000.

The date and location of the next steering committee meeting was discussed. The consensus was that the next meeting should be held in spring, at one of the eastern Class I areas (Shenandoah was the popular choice). It was left to the chairman to poll the steering committee for available dates in April. William Malm will check the availability of meeting facilities at Shenandoah.

Action Items

Marc Pitchford and David Joseph	complete a draft annual report by 6/87
Marc Pitchford	prepare a draft meeting summary by 3/87
Marc Pitchford	poll participants for appropriate date in April for next meeting by mid-March
William Malm	check availability of a meeting facility in Shenandoah NP by mid-March
David Joseph	continue work on Informational Requirements report including contracting for section II for a mid-summer draft completion date

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IMPROVE Steering Committee Meeting Agenda

Dates: February 12, 1987

Location: National Park Service Wahweap Ranger Station, Page, AZ

February 12

8:00 am	Update on:	visibility policy	Janet Metsa
8:30 am		long-term network	William Malm
9:00 am		IMPROVE annual report	David Joseph and Marc Pitchford
9:10 am		FY-87 IMPROVE funds	Janet Metsa, William Malm, and others?
9:20 am		WHITEX	William Malm
10:00 am	Plans for:	additional attribution studies	Marc Pitchford
10:30 am		database	Marc Pitchford
10:45 am		quality assurance	Marc Pitchford
11:00 am	Early lunch		
12:00 pm	Tour of WHITEX site, tracer injection system, and airborne view of haze		William Malm and Bob Candelaria
5:00 pm	Adjourn		

* The meeting will be in the training room of the NPS Wahweap Ranger Station.

IMPROVE Steering Committee Meeting Participants
February 12, 1987

<u>Name</u>	<u>Organization</u>	<u>Phone</u>
Scott Archer	BLM, Denver, CO	FTS 776-1762
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James Byrnes	FS, Washington, DC	FTS 235-8096
William Malm	NPS, Ft. Collins, CO	303 491-8292
David Joseph	NPS, Denver, CO	FTS 776-8761
Brian Mitchell	NPS, Denver, CO	FTS 776-8761
Marc Pitchford	EPA, Las Vegas, NV	FTS 545-2363
David Stonefield	EPA, Durham, NC	FTS 629-5540
Janet Metsa	EPA, Durham, NC	FTS 629-5540