



MULTIMEDIA RESEARCH

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Summative Evaluation of  
*Earth & Sky* Radio Shows in  
Three Public Radio Markets

Report for  
Earth & Sky, Inc.

by  
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## Executive Summary

*Earth & Sky* is a two-minute public radio science series about environmental sciences, earth sciences, and astronomy. As broadcast of the series expanded across the U.S., Multimedia Research implemented summative evaluations of listeners in three different radio markets. The evaluations focus on whether listening to the series influences adults' knowledge of, interest in, and attitudes toward science and whether the series affects listeners' science-related activities.

### MICHIGAN, 1993

In the Michigan radio market where *Earth & Sky* had been airing for 18 months before the December, 1993 evaluation, surveys were mailed to a randomly generated subset of 368 of the 7,000 members of Michigan public radio. Half of the surveys were returned. Generalizations of these results are limited to populations similar to the Michigan sample, who were predominantly white, educated, and professional.

Generally, the results of this evaluation demonstrate that the goals of the series are being met for Michigan public radio members; that is, the series makes science accessible and interesting to the listening audience and generates excitement about science. Although only two minutes in length, the programs were perceived as affecting listeners' understanding of science and their further exploration of science topics.

- 66% of survey respondents said they had "listened to" the series.
- Gender, ethnicity, and occupational status did not relate to whether a person listened to the series.
- Listening or not listening was not related to one's interest in science, science learning habits, level of science knowledge, or attitudes toward science.
- More listeners were in the younger age groups ( $\leq 47$ , 48-60) than the older age group ( $\geq 61$ ).
- Those with post-college education were more likely to be listeners than those with only college.
- Listeners were more likely than non-listeners to report that they "regularly" receive science information from radio, newspapers, and magazines/journals.

More specific findings for listeners of *Earth & Sky* follow:

- 81% reported listening to at least one show in the previous two weeks.
- 27% estimated hearing five or more programs.
- 91% of listeners said they "enjoyed listening" to the series.
- 82% agreed that they "perk up and pay attention" when they hear the program.
- 88% felt that the *Earth & Sky* content was presented at an acceptable technical level.
- 82% agreed that the series had "expanded their knowledge of science."
- 75% thought exposure to the show increased their awareness of science news topics.
- 71% said that they had thought about *Earth & Sky* information at a later date.
- 50% agreed that listening to the series affected the way they looked at the night sky.

- 34% reported that they hear new information "all the time" on *Earth & Sky*.
- Listeners recalled most frequently learning about astronomy and environmental science topics.
- 51% discussed *Earth & Sky* topics with other adults or children.
- 32% felt the series had prompted them to take further action related to a program topic. The most common action was observation of a night sky event that was described on *Earth & Sky*.

## FLORIDA, 1994

In the Florida market, *Earth & Sky* had aired for a few weeks before the evaluation began. To explore the impact of audience exposure over time, surveys were mailed 4 times, spaced 3 to 4 months apart, to randomly generated subsets of a total of 1,473 of the 2,700 members of Florida public radio. Half of the surveys were returned. Generalizations of these results are limited to populations similar to the Florida sample, who were predominantly white, educated, and professional.

Generally, the results of this evaluation demonstrate that the goals of the series are being met for Florida public radio members; that is, the series makes science accessible and interesting to the listening audience and generates excitement about science. Although only two minutes in length, the programs were perceived as affecting listeners' understanding of science and their further exploration of science topics.

- Those who reported "hearing of *Earth & Sky*," "listening to *Earth & Sky*," and having "listened to at least one show in the previous two weeks" increased significantly from the first survey (one month after first airing) to later surveys (five, eight, and eleven months after first airing, respectively).
- Listeners increased from 13% in the first mailing to 49% in the last mailing, one year after first airing.
- Gender, ethnicity, and occupational status did not relate to whether a person listened to the series.
- Listeners (mean age = 47 years) were slightly but significantly younger than non-listeners (51 years).
- Background characteristics of interest in science, science learning habits, level of science knowledge, and attitudes toward science did not relate meaningfully to whether a person listens to the series.
- Listeners were more likely to report that they "regularly" receive science information from radio.

More specific findings for listeners of *Earth & Sky* follow:

- 70% reported listening to at least one show in the previous two weeks.
- 92% of listeners said they "enjoyed listening" to the series.
- 77% agreed that they "perk up and pay attention" when they hear the program.
- 94% felt that the *Earth & Sky* content was presented at an acceptable technical level.
- 77% agreed that the series had "expanded their knowledge of science."

- 69% thought exposure to the show increased their awareness of science news topics.
- 44% said that they had thought about *Earth & Sky* information at a later date.
- 37% agreed that listening to the series affected the way they looked at the night sky.
- 15% reported that they hear new information "all the time" on *Earth & Sky*.
- Listeners recalled most frequently learning about astronomy and earth science topics.
- 36% discussed *Earth & Sky* topics with other adults or children.
- 12% felt the series had prompted them to take further action related to a program topic. The most common action was observation of a night sky event that was described on *Earth & Sky*.
- The percentage of listeners who were curious about asking a question of *Earth & Sky* increased significantly from the first survey to each of the later surveys.

#### CALIFORNIA, 1994

The evaluation summarized here studied a San Bernardino, California, radio market where *Earth & Sky* had been airing for 28 months before the evaluation. Surveys were mailed to a randomly generated subset of 600 of the 2,000 members of KVCR-FM public radio. Half of the surveys were returned. Generalizations of these results are limited to populations similar to the California sample, who were predominantly white, educated, and professional.

Generally, the evaluation results show that the series' goals are being met for the KVCR-FM public radio members; that is, the series makes science accessible and interesting to the audience and generates excitement about science. Although short in length, the programs were perceived as affecting listeners' understanding of science and their further exploration of science topics.

- 86% of survey respondents said they had "listened to" the series.
- Gender, ethnicity, occupational and educational status did not relate to whether a person listened.
- Listening or not listening was not related to one's interest in science, science learning habits, level of science knowledge, or attitudes toward science.
- More listeners were in the younger age groups ( $\leq 46$ , 47-560) than the older age group ( $\geq 61$ ).
- Listeners were more likely than non-listeners to report that they "regularly" receive science information from radio and museums.

More specific findings for listeners of *Earth & Sky* follow:

- 88% reported listening to at least one show in the previous two weeks.
- 56% estimated hearing five or more programs in the previous two weeks.
- 95% of listeners said they "enjoyed listening" to the series.
- 83% agreed that they "perk up and pay attention" when they hear the program.
- 94% felt that the *Earth & Sky* content was presented at an acceptable technical level.
- 91% agreed that the series had "expanded their knowledge of science."
- 78% thought exposure to the show increased their awareness of science news topics.

- 97% said that they had learned something from listening to *Earth & Sky*.
- 79% said that they had thought about *Earth & Sky* information at a later date.
- 62% agreed that listening to the series affected the way they looked at the night sky.
- 29% reported that they hear new information "all the time" on *Earth & Sky*.
- Listeners recalled most frequently learning about astronomy and earth science topics.
- 57% discussed *Earth & Sky* topics with other adults or children.
- 38% were prompted to take further action related to a program, like observation of the night sky.
- Women compared with men had a lower estimated science knowledge, but listened to more shows per week, enjoyed the series more, and more frequently reported discussing topics with others, thinking about a topic at a later date, and taking further action related to a program topic.