MEDIA FORECASTS – FACT OR FICTION

John Walls

Staff Meteorologist, KOIN Television, Portland, Oregon

PREFACE

"Recently, I had the opportunity to talk at a meeting of members of the National Weather Service, attended by the Western Region Director. The subject of my presentation is one that has bothered me for some time — that of communication between the National Weather Service and the broadcast media. As a member of the latter group and a professional meteorologist, I hope that I can be of some influence in improving this relationship. This is the text of a talk given to NWS employees on 28 September, 1976 at Portland, Oregon."

As a military meteorologist, I found that forecasting for flight operations involved two distinct tasks; the preparation of the forecast and the briefing of the decision makers. If both functions were not performed by one person, the forecasters preparing the forecast were expected to work closely with the briefers so that both would have an understanding of the strengths and weaknesses of the information being presented. This coordination also aided the briefer in the selection of visual aids which were intended to provide a clear interpretation of the forecast conditions. Both the forecaster and the briefer were meteorologists and frequently shared ideas in the preparation of the forecast and in the selection of the visual aids. In essence, the "manufacturer" and the "Salespeople" had a common purpose -- to sell the best possible product.

As a military forecaster, I generally served customers that had some background in meteorology if nothing more than basic meteorology taught to students in pilot training. Weathbriefings given air crews stressed the hazards to flying. Crew members listened intently to what I had to say concerning expected thunderstorms terminal conditions, and the forecasts of turbulence and icing conditions that might affect their aircraft. If the forecast did not turn out as expected and flying missions had to be scrubbed (before or after initia - tion), I answered command inquires as to what went wrong as the "salesman" of a questionable product.

Now as the Staff Meteorologist for a television station. I coordinate daily, in person, with the forecasters of the National Weather Service (NWS). In contrast with the forecasters of the Air Force's Air Weather Service (AWS), the NWS must serve customers with a much broader interest and, typically, must depend on "salespersons " who are not paid by the same employer and who do not always have the same interest in selling the best product. One group of such "salespersons" are members of the broadcast media who carry the NWS product to the general public. Television and radio announcers, newspeople, disc jockeys, and "weathercasters" have the responsibility. In my opinion, this communication bewteen the NWS forecaster and media people frequently breaks down.

The development of the best possible forecast depends on the education and experience of the forecaster (s) and the appropriate use of numerous forecasting tools including satellite photography, computers, and elaborate communications systems. It typically takes several hours to accumulate the information, participate in map discussions, collect ideas, write the forecast and transmit information. It may only take a matter of minutes for the forecast to be fed back to television and radio audiences using different terminology and with an entirely different meaning than intended by the forecaster. Frequently, such forecasts still bear this NWS label. Without the common purpose, the "manufacturer" and the "salespeople" are not always working with the same product.

In talking with several members of the broadcast media, I found that a common complaint was that weather forecasts are frequently uninteresting and sometimes boring. The live - lihood of the broadcast industry depends on holding the interest of the viewer or the listener. If forecasts are written in such a way as to be dull and uninteresting, the disc jockey, news reporter, or whomever has the responsibility of passing the forecast along, attempts to make the product attractive to the cusotmer. This frequently re - sults in the modification of the original product. On the other hand, the NWS forecasters are the authorities and modification by non-professionals is assumed to result in an inferior product.

It is the newsperson's job to write copy that is accurate, understandable, and interesting to the viewer or listener. What appears to me, as a layman, to be well written information is transmitted over the national news wires, but is subsequently rewritten by local newspeople before being presented to the television and radio audiences. This information may be rewritten time and time again,

by different newspeople for various news programs to add the personal touch of the individual news reporter and/or fit the time requirements of a particular news program. News, sports information, and weather forecasts fall in this category. Without the attempt to improve the original copy, it is commonly felt, by news reporters and their supervisors, that the job is not being done correctly.

Weather forecasts read by radio disc jockeys often do not reflect what the forecaster originally intended. In talking with disc jockeys from several radio stations around the country, a variety of reasons for reading something other than the current forecast were expressed. A few are listed here:

1. Outdated forecasts are read on occasion because the date-time group on the copy was misread or not read at all.

2. The disc jockey was not aware that a current forecast was available, thus outdated forecasts were presented.

3. Because of insufficient time between records, commercials, etc. only a portion of the forecast was read on the air.

4. Because more time was available than anticipated between records, commercials, etc., the disc jockey provided his/her own commentary on the expected weather conditions (ad lib).

5. Night shift disc jockeys often have the responsibility of the entire radio station operation and on occasion, cannot get away from the control facilities to visit communication terminals thus, outdated forecasts are used.

6. One disc jockey was an amateur meteorologist and indicated that if he read the current forecast it would imply agreement with the NWS forecast which was frequently not the case. On these occasions he read his own forecast.

Despite the variety of reasons that the disc jockeys gave for not reading the current forecast, their most common complaint to me was the NWS forecast was, typically not a very interesting bit of information. Their mod - ification was done primarily to make the forecast more attractive to the listener.

Television viewers of news programs were surveyed as to the reasons they watched particular news programs. The results, listed in the August 23, 1976 issue of *Broadcast* magazine (page 56), indicated the weather report as third priority. Even though the forecast has this priority, the television weathercaster, without a meteorological background, runs the risk of distorting the intended forecast through the modifications of the original text and through inappropriate use of visual aids. This is an unfortunate by-product of the inability of the "manufacturer" and the "salesperson" to communicate.

According to the media people with whom I had contact, weather forecasts as they are written now are also not very clear, in addition to being uninteresting. They ask: what is meant by "partly cloudy", "partly sunny", or " fair weather"? At the American Meteorological Society's Seventh Conference on Weathercasting (Radio adn TV) held in Toronto, during June of this year, David P. Murray of the University of Wyoming reported the results of a questionnaire that he used to determine the public's awareness of frequently used weather terminology which was intended to help forecasting meteorologists understand how the public interprets their forecasts. One of his conclusions was: "The meaning of various indefinite terms must be clearly defined in order to eliminate misunderstanding in the weather forecast." Mr. Murray provided two reccommendations as a result of his questionnaire:

1. Predict anticipated weather as complete as possible.

2. Present the prediction to the public in a clear and uncomplicated manner.

It is not difficult to identify the "manufacturer" and the "salesperson" roles in Mr. Murray's recommendations. Specifically, he suggests "... selecting terms that are clear in meaning to describe the present and expected weather conditions."

I was recently discussing with the NWS forecasters, what was meant by "fair" when used in a weather forecast. It was generally agreed that "fair" indicated some degree of sunshine. "Fair" is defined in the AMS' *Glossary of Meteorology* as:

a. no precipitation
b. less than 0.4 sky cover of low clouds
c. no other extreme conditions of cloudiness, visibility or wind.

This description of "fair weather" is prefaced in the *Glossary* as a "purely subjective description." Thus broken sky conditions of middle and/or high clouds may accurately be described as "fair weather". I suspect that the general public would interpret such conditions as a non-verification of a "fair weather" forecast, at least in some areas of the country. Mr. Murray's questionnaire similarly showed a misunderstanding of other terms commonly used in forecasts.

I suggest that the solution to finding a means of presenting interesting, yet accurate forecasts through the broadcast media will not be a one-sided affair. The "manufacturer" and the "salespeople" must get together with a little bit of give on both sides. The NWS will not be able to insist that their forecasts be read over the air exactly as written. Federal Communication Commission regulations do not restrict people in the media from presenting any forecast they chose. On the other hand, media people should not permit their on-the-air personnel, who are without some training and experience, to change the forecasts to whatever they think might sound interesting to their audience.

The media and the NWS administrators can get together only if there are some common terms in communication. This will require some of the NWS forecaster's time and facilities to discuss the forecasts with the weathercaster (preferably in person) while it will be the responsibility of the media to hire weathercasters that can communicate to some extent in the appropriate scientific language with the forecasters. The television weathercaster has the greatest opportunity of all the "salespeople" to make the forecasts interesting to the viewer. Using artistic and graphic techniques, the television weathercaster can present meaningful maps, charts, and graphs, relate current weather satellite photographs to known geographical features and then to meteorological significance, and finally, present the forecast in clear everyday terms. The media has the communications facilities to reach the general public. The NWS has the talents and the facilities to produce the most accurate forecasts possible. The message can best be communicated by cooperation between "manufacturer" and the "sales staff". In a long run both will benefit.

Readers interested in media forecasts should also read the panel discussion held at the Annual NWA Meeting appearing on page 29.

TRADING POST

Since our last issue, the following Technical Procedures Bulletins have been issued.

No.	Title
170	Operational Probability of Frozen (POF) Forecasts Based on Model Output Statistics (MOS)
171	Operational Probability of Precipitation (POP) Forecasts Based on Model Output Statistics (MOS) -- No 13
172	List of Operationally Obsolete Technical Procedures Bulletins
173	Realignment of FOUS 60-76 and New FOUS 77 Bulletins
174	Post-processing of the LFM Forecast
175	Facsimile Schedules NAFAX and FOFAX
176	Facsimile Schedule NAMFAX
177	Qualitative Beach Erosion Forecast for the Oceanic Coastlines of the Northeast and Mid Atlantic States

Persons interested in obtaining copies of these Bulletins can write directly to Dr. Duane Cooley, Chef, Technical Procedures Branch, Meterological Services Division, NWS W111, Gramax Bldg, Rm 1302, Rockville, MD. 20852.

A FORMULA FOR FORECASTING MINIMUM TEMPERATURES AT URBAN LOCATIONS...

Here is a nifty empirical formula which will quickly give a highly accurate forecast of minimum temperatures at two widely different geographical locations, Chicago and Washington, D.C.. It may also be applicable at other urban locations.

$$MN = \frac{2MX + D}{3} + \sqrt{\frac{100-c^2}{10}} \left(\frac{W}{2} - 14 + Q\right) + A$$

MN = Forecast minimum temperature
MX = Highest temperature between 1 pm and 4 pm the previous afternoon
D = Dewpoint at time of maximum
C = Average opaque cloudiness in tenths the entire 24 hours prior to the time of minimum
W = Average wind speed during the nighttime hours before the minimum (any W greater than 28, set equal to 28.)