

TELETYPE TECHNIQUES AND PRESENTATION PROCEDURES  
FOR PUBLIC WEATHER CIRCUITS

-Contents-

1. Introduction
2. Transmission Mechanics
  - a. Schedules
  - b. Priority of traffic
  - c. Monitoring
  - d. Headings
  - e. Message separation
  - f. Types of advisories
  - g. Retention of copy
3. Composing Weather Advisories
  - a. E - emphasis
  - b. S - system
  - c. S - simple
  - d. A - accurate
4. Sample Transmissions
5. Contacting the User
  - a. Personal visits
  - b. Workshops
  - c. Clip Sheets
  - d. Gaining new subscribers



## 1. INTRODUCTION

Paper rolling out of Southern Region public teletypewriters in one year's time would reach all the way from Albuquerque to Miami. Hundreds of radio and television stations in this Region depend on the Weather Bureau's public circuits for up-to-the-minute weather information. Of all the tools available to the meteorologist, including the spectacular satellites and giant computers, none has made a more significant contribution to the general public than has the public weather teletype.

Transition from public telephones to public teletypes has been smooth. In the case of relatively small circuits with a small amount of traffic, only a minimum of time is necessary to administer the circuit. But the trend is toward bigger and busier loops; and for continued effectiveness, new techniques and procedures must be accepted and followed. During the last few years many organizations have developed an increased interest in techniques for communicating with their users. Industrial and public libraries contain many reports of this effort and some of this literature is applicable to our public teletype networks.

In Mississippi and Louisiana, the U. S. Forest Service and associated state organizations have undertaken an intense problem analysis of their public communication system. A large number of the forest fires in this area are man-set. The fire control agencies have tried to reduce this destruction by a large scale radio and television campaign. Sociologists of LSU and MSU have made several hundred in-depth interviews to determine: the meaning imputed by the audience to the various messages, the location of gaps in impact in the message, and finally the perception--recall rates related to presentation. Their preliminary results are similar to reports from other groups studying mass communication. People, in general, heard what they were conditioned to hear, saw what they were accustomed to see, and remembered that which was of personal interest to them as individuals.

When warnings are issued on public weather circuits, the intention is to motivate a positive action--take protective cover. Other weather advisories are satisfactory if the reaction is less dramatic but even so there is little justification for issuing any weather advisory if it does not call for a reaction from some group of users. To get this reaction from our advisories we must do three things:

1. Get the user's attention.
2. Give the facts in an understandable manner.
3. Check user reaction often enough to determine advisory effectiveness.

Stations in the Southern Region have developed unique methods of accomplishing these three objectives and the purpose of this guide is to pass on systems that may be used to increase the effectiveness of public service loops.

## 2. TRANSMISSION MECHANICS

Viewpoint is a key to the successful public circuit. From the Weather Bureau's viewpoint, the circuit is primarily a vehicle for communicating warnings and critical forecasts to the public. Other information is secondary as far as we are concerned. From the radio and television stations' viewpoint, the circuit is primarily a source of supply of news copy and filler broadcast material. Sponsors pay for scheduled periods of broadcast coverage--not for infrequent statements concerning critical weather. Recognizing this fundamental difference in use of the circuit is essential for its effective operation.

Schedules - Adherence to a schedule is necessary for radio and television station programming. Late transmissions frequently do not reach the public and a broadcast station that finds it cannot rely on having the needed information for scheduled programs will soon drop off the circuit. Many offices get by with early transmissions but these, too, are hazardous. Early transmissions can get torn off and lost, thus become the cause of a requested rerun. Added to this, early transmissions tend to detract from the authority of the release. Broadcasters have been known to infer on the air that if the weather forecaster doesn't even know what time it is, he can't tell much about the weather.

Although all scheduled transmissions must be sent on time, teletype copy should not be limited to items on the schedule. Broadcasts of fair weather forecasts in the middle of a sudden thunderstorm are not well accepted by the public. The forecaster cannot eliminate this, but transmission of timely revisions can minimize the occurrence. An old forecasting adage states, "At least keep current." The teletype provides this opportunity.

Each subscriber should have an up-to-date schedule. Offices serving rather small circuits usually transmit the schedule on the teletype every two or three months. Offices serving large circuits have found it more convenient to mimeograph the schedule and mail a copy to each subscriber with more than one copy to the larger disseminators such as combined radio/television stations. A new schedule should be made available before any significant change is made.

At times it becomes desirable to drop an item that has been part of the scheduled list of transmissions for some time. If all subscribers are canvassed, the chances are large that someone will want the item continued. New transmissions will be added but nothing will be dropped. In these cases there is no alternative to just dropping the message and reinstating it later if there is a significant number of requests.

Priority of traffic - Subscribers should be informed that emergency traffic has top priority and if the situation demands, all routine transmissions will be omitted until the emergency ends. This procedure

should apply to all public teletypewriter circuits. On circuits with more than one Weather Bureau transmitter, a written order of priority should be adopted and followed by each transmitting office. Breaking of other transmissions should be limited to only real emergency traffic.

Monitoring - When local loops first began, subscribers were so glad to receive the material that they were very tolerant of garbling, variable times of transmission, and having the circuit running open. Many are not as tolerant now and our professional reputation suffers when crude teletype procedures are allowed to continue. Perhaps the greatest irritant to disseminators is allowing the transmitter to get stuck on the line feed signal. Tearing the transmitting tape at the wrong spot can do this and the result is yards of blank paper on every machine on the circuit.

Responsibility for circuit monitoring is obvious in loops with only one transmitter. But on the seven loops in this Region now served by more than one Weather Bureau office, monitoring is an important function of the key office. Differences in opinion on circuit traffic should be discussed by telephone or by mail. Only urgent requests should be entered on the teletype.

Headings - Do I want to broadcast this? Each newsman asks himself this question when he goes to the teletype machine. Since many disseminators are the "rip and read" variety, headings must be simple. All headings on each local loop should be standard. The heading should include a date/time group, the area covered by the release, and the type of advisory contained in the release. ESSA/Weather Bureau should also be included in the heading but the name of the originating office is not necessary. Since office responsibility for river forecasts, state, zone and local weather forecasts, and for severe weather warnings is usually not known by loop subscribers, the name of the originating office in the heading does not really contribute needed information and can be confusing. Attribution should be to the ESSA/Weather Bureau and not to an individual office.

On the Oklahoma loop, Oklahoma City and Tulsa number each transmission; for example: OKCWB#12 - TULWB#10. The transmission number as part of the heading helps subscribers keep track of messages which is especially important during severe weather periods. Since there are non-Weather Bureau transmitters on the Oklahoma loop, the numbered headings help identify the sender. Message numbering has been tried on other loops and where there are only Weather Bureau transmitters, the system has been dropped.

Message Separation - A minimum of six line feeds should separate each individual transmission. Many stations start each transmission with three line feeds and end with three. Some loops automatically turn off at the end of a transmission. Here it is necessary to send enough line feeds so that the end of the message rises above the glass cutting

edge because subscribers with Model 28 machines cannot pull paper out of the machine after the circuit has stopped running. Regardless of the number of line feeds used, adequate separation aids message identification.

Types of advisories - Warnings are our most vital responsibility and copies of the new WB Form 656 series for severe storms and the pre-cut warning tapes should be kept near the transmitter for immediate use. On loops served by more than one Weather Bureau transmitter the exact role to be played by each office must be thoroughly understood. The monitor office must take the initiative to see that proper procedures are followed.

Flood warnings should be given the same priority as weather warnings. Because these messages often involve a series of points, tabular presentation is good but as in all public circuit transmissions, coded material is to be avoided.

Forecasts should be scheduled for transmission as soon as they are available. Weather summaries should be scheduled for the user's convenience. Forecasts should be grouped, if possible, and should be arranged in logical order. It is confusing to the user to have the series of forecasts separated by other types of transmissions. Many offices include the statement, "Not to be used after \_\_\_\_\_" above or below the forecast. This does not prevent some disseminators from using old forecasts but it does seem to help.

The classic news broadcast periods are: breakfast, dinner, supper, and bedtime. Up-to-date summaries should hit these peak periods. For many years, agricultural broadcasts were highlighted early in the morning. Many farmers don't get up any earlier than city people now and surveys have shown peak farm audiences in the 7 A.M. to 8 A.M. period and around the noon hour. The recent study of the construction industry indicates that weather information is needed for two main planning periods--around 7 A.M. and again around 3 P.M. Recent radio and television surveys point toward the continued importance of the four classic news periods and public summaries should focus on these times.

Many stations have unique types of weather summaries. Corpus Christi transmits a Travelers' Weather Summary which has been very well accepted. Radio beams much of its coverage at the car receiver and this type of information can serve a real need in areas of heavy highway traffic.

Recreational summaries are very popular in many areas. Some stations transmit these on Friday afternoon; Saturday morning, noon, and night; and again on Sunday morning. Care needs to be taken so that these recreational summaries do not conflict with wind warnings issued later or by different offices.

Weather observations are broadcast most frequently on the hour but many broadcast stations put the observations on the air a couple of minutes before the hour. This complicates the regular observation program but since this report does serve a need it is desirable to enter the observation shortly before the hour.

Of all types of summary, perhaps the easiest to write is the most popular and this is the hourly summary. Two to five lines of copy summarizing hourly weather reports and giving a short term outlook have been a boon to many radio stations. By framing a short statement for their use, the tendency to ad lib irrelevant and perhaps confusing remarks about the weather is minimized. An example of this and other transmissions is shown in a later section.

Retention of copy - The need for saving copy is a function of circuit traffic. Loops with one transmitter normally do not need to save each day's run. But when there is a severe weather watch, warning, or other critical weather situation in the area, these stations should save all copy from the public loop. This can be done by filing each message as it is torn off or by inserting a carbon roll and saving the second sheet untorn. This copy is vital if a damaging storm occurs and a review of the storm is conducted.

The monitoring office serving a loop with more than one transmitting office should use carbon rolls and save the entire run for a period of at least two weeks. Weather Bureau Manual Chapter III-B-1832 calls for filing of all severe weather transmissions for a period of three years and these should be removed from routine traffic before disposing of public teletype copy.

### 3. COMPOSING WEATHER ADVISORIES

Modern journalistic writing, like modern automobile design is streamlined and functional. New and progressive organizations accept this concept and as part of the new ESSA, our writing should reflect modern trends in communication. Let's use the initials of our new Administration to illustrate streamlined and functional writing.

E --- Emphasis  
 S --- System  
 S --- Simple  
 A --- Accurate

Emphasis - Most of us cannot talk without emphasizing a word, a phrase, or a sentence. There is nothing new about this. But most of us learned a completely different approach when it comes to the written word. Emotion seldom enters our writings. Often we start with such an involved preamble that the vital phrase or word is buried and hard to find.

Forecasts should start with the key word for proper emphasis. If colder weather is the important feature in the forecast, start the forecast with this word. If rain is the important feature, lead off with the word rain.

Cloudy and colder with rain tonight  
 Colder with rain tonight  
 Rain and colder tonight

The only difference between these phrases is emphasis. The lead word is the important word and though this principle is well known, forecasts often are not written with this in mind. The same idea applies to summaries. Public radar summaries are especially guilty when it comes to burying the important facts.

ESSA/Weather Bureau                      1:00 P.M.                      MAY 15, 1966  
 RADAR SUMMARY

THE 1.00 P.M. RADAR OBSERVATION AT JONESTOWN WEATHER BUREAU  
 SHOWS THAT....

It would be much better to start off by telling what the radar showed. All of the information given in the start of this radar summary is just a repeat of the heading. Since many radio stations do not broadcast headings, it is necessary to indicate the time in the body of the summary.

System - The best system to use in writing for the public loop is the journalistic system. This implies a news style of writing followed by some sort of editing procedure before the copy is transmitted.

Oscar Tenebaum's article, "A New Look at the Forecast Story," in the January 1966 Bulletin of the AMS has an excellent summary of news style writing. In essence, any weather summary should start with a SUMMARY LEAD, followed by Big Details, and these are followed by details.

A classic concept of news writing is the "who, what, when, where, why, and how" approach. At least the first four should be in the lead paragraph. The "why and how" are not always necessary or applicable but since the public has become more weather conscious in recent years, the "why and how" appeal to many in the audience. Weather reporters think that the "why and how" tend to increase the audience's confidence in the forecast. In some way, the user feels he has had a hand in shaping the forecast if he knows the "why and how" of the situation and this personal involvement makes him a more receptive user of weather advisories.

Attribution is a puzzling problem in weather summary writing. It seems awkward for the forecaster to talk in the third person and refer to a Weather Bureau forecaster, official, or expert when speaking of himself but this is much better than saying "we think this or that." Past weather situations add appeal to weather summaries and sometimes they are started by, "Back in 1952 we had..." The "we" should be changed to "the Weather Bureau reported" or some such impersonal reference.

Editing is perhaps the most important process involved with good teletype procedures. It is also probably the most neglected. If more than one man is on duty, a second person should read the advisory before it is sent so that the intended meaning is actually conveyed. If only one man is available, he should reread his copy carefully. This will usually screen out at least the obvious mistakes.

Simple - Understanding is a function of the degree of simplicity, up to a certain point. If broken into simple components, a complex idea becomes more understandable. The same goes for weather advisories. Shortness is generally equivalent to simplicity in writing. Short words are easier to understand than long words and short sentences and paragraphs are better than long ones.

Various indices have been developed for the measurement of readability. For the type of audience we try to reach with public teletype circuits, most of the indices suggest an average syllable length of two per word, an average sentence length of 17 words, and an average paragraph length of 5 or 6 teletype lines.

Weather summaries would be simple if these averages were followed closely but they would also be very dull. Word length must vary and length is not the only important measure. For example, temperature has more syllables than occlusion but it is understood by more people. Advection is a fine word to use in an FP3 but not in public weather summaries. There are other words of this type and a quick editing of a summary can cull these from the copy.

Sentence length should vary. Short sentences are usually emphatic and when mixed in with longer sentences the result is more interesting. Long sentences can be broken by a series of dots or dashes and this seems to appeal to broadcasters. Long sentences with no breaks should definitely be avoided. If a broadcaster runs out of wind before he hits the end of the sentence, he will not be a fan of weather teletype copy.

Paragraphs should stay short. If more than eight lines are hung together in one paragraph, the reader can lose his place and this does not aid the usability of an advisory.

Abbreviations are a form of simplicity that should be avoided. A few very well known abbreviations are acceptable but many of the abbreviations that forecasters have memorized and understand are completely Greek to newsmen. Most public networks in this Region use station call letters in hourly roundups and 6- and 12-hour rainfall and temperature tables. If the name is spelled out it is, of course, much better for the user. Radio announcers move often and many are novices, especially to weather reporting. Pre-cut tapes giving column headings and the list of station names are used by some stations and minimize the amount of typing needed to prepare a long table of observations.

Accurate - If we could produce completely accurate forecasts, we would not have to be so concerned with writing weather summaries. But since our forecasts are not as precise as planet movements, we cannot display our advices in numeric tables; we must utilize the written script.

A recognizable inaccuracy in a summary, such as locating a town in the wrong part of a state, or using the wrong word to describe an event, can completely shatter the audience's confidence in the rest of the message. Have you ever seen a television weather show that pointed to Jackson, Mississippi, and called it Jacksonville, or have you heard a rather incredible discussion as to why rain was forecast? Only a careful editing of the outgoing copy on the teletype machine can minimize inaccuracies, and such a careful editing should be done.

## 4. SAMPLE TRANSMISSIONS

Area weather summaries covering more than one state are used by many of the larger disseminators on public loops. The following Summary for the Southeast issued by WBAS, Atlanta is a good example. Notice that the lead hits the most important current features. This is important even during the rather routine weather existing during the period covered by the Summary. Also notice the short sentences and paragraphs. Anybody can read this copy.

ESSA/WEATHER BUREAU

FEBRUARY 6

## 4 AM SUMMARY FOR THE SOUTHEAST

WEATHER IN THE SOUTHEAST IS RATHER CHILLY THIS MORNING BUT NOT QUITE AS COLD AS YESTERDAY MORNING. TEMPERATURES ARE DOWN TO NEAR ZERO IN NORTHERN KENTUCKY AND IN THE 20S OR LOWER AS FAR SOUTH AS THE GEORGIA MOUNTAINS. IN THE DEEP SOUTH READINGS ARE MOSTLY IN THE 40S WHILE THEY ARE A LITTLE HIGHER IN CENTRAL AND SOUTHERN FLORIDA.

RAIN IS DEVELOPING TO THE SOUTHWEST AND A SMALL LOW PRESSURE DISTURBANCE IN THE GULF OF MEXICO DUMPED HEAVY RAIN IN SOUTHERN TEXAS. THE SMALL DISTURBANCE AND THE ASSOCIATED MOISTURE ARE MOVING THIS WAY. SKIES HAVE ALREADY CLOUDED OVER IN SOUTHERN ALABAMA FLORIDA AND SOUTHERN GEORGIA. RAIN WILL REACH THE LOWER MISSISSIPPI VALLEY LATE TONIGHT AND MOST OF ALABAMA GEORGIA AND FLORIDA SATURDAY.

FOR TODAY SKIES WILL STAY CLOUDY ALONG THE GULF COAST AND TEMPERATURES WILL BE IN THE 50S EXCEPT FOR SOUTHERN FLORIDA WHERE READINGS WILL REACH WELL INTO THE 60S OR LOW 70S. SUNSHINE WILL BE BRIGHT FROM CENTRAL ALABAMA AND CENTRAL GEORGIA NORTHWARD AND TEMPERATURES WILL STAY IN THE CHILLY 40S EVEN DURING THE AFTERNOON.

State summaries have great appeal and are widely used. The following sample from Oklahoma City is a good example of a very readable state summary. Note the short paragraphs. The lead really hits the hot humid weather as the thing to emphasize on this early morning summary. The noon summary should probably switch the emphasis to cooler weather expected tomorrow.

OKCWB#13

MAY 17 5.10 AM

ESSA...WEATHER BUREAU

OKLAHOMA WEATHER SUMMARY

HOT HUMID WEATHER PREVAILED IN OKLAHOMA AGAIN MONDAY WITH AFTERNOON TEMPERATURES AT A NEAR RECORD LEVEL. AT OKLAHOMA CITY THE HIGH TEMPERATURE OF 92 TIED THE RECORD FOR MAY 16TH. OVER THE STATE MAXIMUM TEMPERATURES RANGED FROM 86 AT MCALESTER TO 101 AT GAGE AND ALTUS.

LOCALLY SEVERE THUNDERSTORMS DEVELOPED IN NORTH CENTRAL OKLAHOMA FOR THE SECOND STRAIGHT EVENING WITH FUNNELS REPORTED IN KAY COUNTY EARLY LAST NIGHT. LOCALLY HEAVY RAINSHOWERS AGAIN ACCOMPANIED THE ACTIVITY.

EARLY THIS MORNING THERE ARE THUNDERSHOWERS REMAINING IN THE EXTREME EAST CENTRAL PART OF OKLAHOMA. TEMPERATURES ARE IN THE 60S AND THE 70S OVER THE STATE AND SURFACE WINDS ARE SOUTHERLY ABOUT 10 TO 15 MPH.

A COLD FRONT IS MOVING INTO NORTHWEST KANSAS THIS MORNING AND WILL REACH CENTRAL OKLAHOMA TONIGHT BRINGING COOLER WEATHER TO THE STATE ON WEDNESDAY. WIDELY SCATTERED THUNDERSTORMS WILL DEVELOP TO THE SOUTH OF THE FRONT THIS AFTERNOON MOVING ON EASTWARD OUT OF OKLAHOMA TONIGHT. GUSTY SOUTHERLY WINDS TODAY WILL BE UP NEAR 30 MILES AN HOUR IN THE NORTHEAST WHERE LAKE WIND WARNINGS ARE POSTED FOR TODAY.

HIGH TEMPERATURES TODAY WILL BE FROM 92 TO 102 AND ON WEDNESDAY BETWEEN 83 AND 92. LOW READINGS TONIGHT WILL RANGE FROM 55 IN THE PANHANDLE TO 70 IN THE SOUTHEAST.

END...

Hourly weather roundups similar to the following Lubbock release provide a source of weather news that is used in a variety of ways. Disseminators wanting complete coverage can read the entire message. Those wanting only a short roundup can read the paragraph at the bottom. Others can pick out some of the nearby hourly observations. These tables are easier to read if column headings "WX...TEMP...WIND" are used and if the items appear directly under the heading.

SOUTHWEST WEATHER AT 9 PM MAY 16 1966

....ALL STATIONS CLEAR UNLESS OTHERWISE DESIGNATED....

ROW...PC	85	
ELP...86	W17	
HOB...82		
MAF...PC	79	
LBB...PC	86	SW16
ABI...85		
DAL...82	S17	
SJT...83	S16	
SAT...CLDY	6EEE	79
AUS...CLDY	78	
HOU...76		
CRP...75		
BRO...PC	75	
DEN...PC	72	
LHX...70		
GCK...70		
SAF...66		
ABQ...74		
TCC...77		
DHT...74		
AMA...PC	77	
CDS...CLDY	83	THUNDER RAIN PAST HOUR
GAG...PC	80	
SPS...PC	84	SE18
OKC...PC	81	
CVS...PC	73	
LRD...FAIR	74	
BGS...80		

....SUMMARY....

THE WEATHER IS WARM FOR THIS TIME OF EVENING. TEMPERATURES RANGE FROM THE MID 60S IN NEW MEXICO MOUNTAIN AREAS TO THE MID 80S IN THE HIGH PLAINS AND EXTREME WEST TEXAS. LUBBOCK AND EL PASO TOP THE LIST WITH 86. A FEW SHOWERS ARE OCCURRING ALONG THE RED RIVER IN WESTERN OKLAHOMA AND THE RIO GRANDE IN EXTREME SOUTHWEST TEXAS.

END...



Specialized summaries need not contain a great deal of detail but they should focus the users' attention on the important facts. Note how the Recreational Forecast issued by Memphis and the Texas Travelers' Summary issued by Corpus Christi come right to the point. These releases are good examples of service to the mobile public.

ESSA/WEATHER BUREAU            5.45 PM FRIDAY        JUNE 3 1966

WEEKEND MID-SOUTH WATER SPORTS AND RECREATIONAL FORECAST

GOOD SATURDAY...POOR SUNDAY.

SKIES WILL BE CLEAR TO PARTLY CLOUDY SATURDAY WITH EARLY MORNING TEMPERATURES IN THE UPPER 50S AND LOW 60S. TEMPERATURES WILL RISE BY EARLY AFTERNOON INTO THE UPPER 80S AND LOW 90S. CHANCE OF A FEW AFTERNOON THUNDERSHOWERS OVER NORTHERN ARKANSAS AND THE MISSOURI BOOTHEEL BUT THE SHOWERS WILL NOT POSE A MAJOR THREAT TO OUTDOOR ACTIVITIES. WINDS WILL BE GENERALLY LIGHT AND VARIABLE IN THE MORNING...SOUTH 5 TO 12 MPH IN THE AFTERNOON...EXCEPT 10 TO 20 MPH WITH A FEW GUSTS TO 25 OVER LARGE BODIES OF OPEN WATER IN NORTHERN ARKANSAS.

SUNDAYS OUTLOOK LOOKS DISCOURAGING FOR THE OUTDOOR ENTHUSIAST. CLOUDINESS WITH WIDELY SCATTERED THUNDERSHOWERS AND BRISK SOUTHERLY WINDS WILL BE THE RULE. WINDS OF 20 MPH WITH GUSTS TO 30 OR HIGHER ARE LIKELY BY NOON. THUNDERSHOWERS WILL BE NUMEROUS OVER NORTHERN ARKANSAS AND SOUTHEAST MISSOURI BUT MORE WIDELY SCATTERED OVER NORTHEAST LOUISIANA AND CENTRAL MISSISSIPPI.

END...

ESSA/WEATHER BUREAU            5 AM THURSDAY        JANUARY 27 1966

TEXAS TRAVELERS SUMMARY

FOG AND DRIZZLE EXTENDS ABOUT 75 MILES INLAND FROM THE COAST THIS MORNING BUT VISIBILITY WILL IMPROVE AFTER MID MORNING.

OCCASIONAL RAIN AND COOLER TODAY AND TONIGHT. CLEARING IN THE PANHANDLE AND WEST TEXAS FRIDAY BUT CLOUDY REST OF THE STATE. SOME EARLY MORNING FOG FRIDAY ALONG THE COAST BUT NOT AS THICK AS THIS MORNING.

TEMPERATURES THIS AFTERNOON 45 TO 55 NORTH TO 60S AND LOW 70S SOUTH. LOW TEMPERATURES NIGHT...25 PANHANDLE LOW 40S CENTRAL TEXAS AND LOW 50S SOUTH TEXAS.

END...

## 5. CONTACTING THE USER

Mass news dissemination techniques of the teletype circuit imply no personal contact with the user. An important paradox is involved. Mass news disseminators subscribing to the circuit are very much individuals and cannot be treated in an impersonal way if the circuit is to succeed.

Personal visits - Each subscriber to the circuit should be visited at least once a year. The visit should be preceded by a letter or a call so that someone familiar with the service and in the position to speak with authority for the organization will be prepared to discuss the service. Drop-ins seldom accomplish much.

Whoever does the calling on the subscriber should maintain a contact book or a card file listing details of previous visits and items to discuss on the current visit. Adequate preparation on the part of the Weather Bureau's contact man greatly increases the value of the visit. A follow-up letter to the subscriber, listing the answers to any questions raised or just summarizing the use of some of the advisories can just about double the usefulness of a contact.

Workshops - Weather workshops for subscribers have been held in many areas served by the large public and agricultural networks in this Region. As with personal contact, advance planning is the key to success. An afternoon program of about three hours generates maximum attendance. A good panel of speakers, including several newsmen that are considered as area leaders, helps attendance and increases participation in the meeting. In one Mid-South workshop a manager of one of the large chemical corporations, an important sponsor of radio and television programs in the area, spoke. And his message commanded great attention from broadcasters.

Various organizations have served as sponsors of the workshops and if an organization, other than the Weather Bureau, calls the meeting the chance of high success is increased. It is said that lawyers do not ask questions if they don't know the answer in advance. Similarly, with workshops it is far better to plan with the speakers and help shape discussion rather than sit back and see what comes out.

Clip sheets - Over 95 per cent of the personnel distributing information to the public from weather circuits have an active interest in weather. This can be cultivated and their individual knowledge of weather increased through the use of a clip sheet series. Each clip sheet is an informative article dealing with a particular phase of weather or weather forecasting. The sheets should be short, only a few paragraphs, and should provide interesting reading. Many of the larger circuits transmit a clip sheet on a regularly scheduled basis. When the series first starts they may send one every week and after six months or a year cut it to once every two weeks.

Gaining new subscribers - Contemporary mass communication theory contains a new idea called the "two-step flow hypothesis" and it is applicable to our public loops. Basically, this two-step flow hypothesis indicates that messages transmitted via mass media are received by opinion leaders and from these opinion leaders the message is transmitted to their respective reference groups including the individuals within their sphere of influence.

This principle can be applied to the representatives of mass media as well as the audience they serve. Some loops have a high per cent of potential subscribers on the circuits. Others have fallen flat. Often the difference is in backing by some organization not associated with the Weather Bureau. Agricultural networks have flourished because of the sponsorship of the opinion leaders of the agricultural universities and of other agricultural organizations. Public service loops can reach more users if they are backed by area organizations such as chambers of commerce, industrial groups, public safety organizations, and broadcaster groups. Key officials must be made aware of the value of these loops to the groups they serve. If this is done, they will see to it that an adequate number of mass media join the circuit. An explanatory visit by a representative of one of these groups, perhaps in company of a Weather Bureau man, is much more convincing to a potential member of the weather circuit than is a visit by a Weather Bureau representative alone.

For visits with either a group opinion leader or with a potential member of the circuit the Weather Bureau representative should be fully prepared. A positive attitude is essential and so is a supply of informational material. Three types of informational material have proved useful: (1) Samples of transmission, (2) A copy of the schedule, and (3) A description of the service.

Copies of various transmissions presented in order of importance can be placed in clear plastic display sheets in a regular looseleaf binder. These sheets can be shown quite readily by just turning the pages as you tell the story of the loop. This is far superior to taking a roll of copy and unwinding this in front of your contact. For one thing, the roll usually contains so much information that the contact is overwhelmed and confused.

After going through the plastic display book, the contact should be given a copy of the schedule with some idea as to how the various transmissions can be applied to a scheduled dissemination program. The final item is a small brochure, containing six to ten pages of explanatory material, and a few samples of actual transmissions. This should be left with the contact so that he can look it over later and explain the service to others. Each of these three informational devices is helpful in explaining the value of the circuit and the Regional Headquarters can furnish examples of each and assistance in their production.

### CONCLUSION

Public weather teletype circuits provide an effective means for communicating with the public. Utility of this important communication link, however, is a function of the proper application of procedures and techniques. Schedules must be drafted and followed. Composition of releases should be streamlined and functional; the ESSA initials can be used as guidelines: Emphasis, System, Simple, and Accurate. Disseminators should be made a "part of the team." They must be informed of changes we plan and we must seek their opinion before making important changes.

### ACKNOWLEDGEMENT

Each weather advisory is a composite of effort of many people. So is this report. Procedures from throughout the Southern Region are included. But, in particular, many of the original ideas came from Tom Reardon, Manager, Radio Station WROX, Clarksdale, Mississippi, and Art Simcox, Chief Communicator, WBAS, Memphis, Tennessee. Thanks are due the Regional Headquarters staff for review and to Irene Reynolds for manuscript preparation.