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CENTRAL REGION TECHNICAL ATTACHMENT 94-01  
GUIDELINES FOR WSO FORECAST INPUT TO THE WSFO

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(Inc.)

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1. Introduction

With more information now being supplied to WSOs (ADAP, Satellite Weather Information System (MICROSWIS) data, and profiler data) meteorologist interns and technicians can formulate their own ideas on the local forecast based on their interpretation of the data. This can be done by preparing a forecast discussion similar to the State Forecast Discussion (SFD) prepared by the parent WSFO, and transmitting it via an administrative message (ADM) to the WSFO. This paper presents helpful guidelines for preparing such a forecast discussion that are used at the WSO in Green Bay, Wisconsin.

2. Format

The format of these forecast discussions is similar to that of the SFDs prepared by the WSFO and usually includes the following:

A. Forecast Problem of the Day

Do not state the obvious! Forecasters do not want to wade through a discourse of what is already evident to everyone. Since they are looking at the same information you are, get right to the point! Some days the forecast problem will be quite complex. Are the lifting mechanisms strong enough to support thunderstorm development...and are severe thunderstorms possible? Will it snow...or is freezing rain possible?...etc. On other days the only difficulty will be determining the high temperature.

B. Current Trends (Optional)

Briefly state what has happened locally over the past few hours, but only if directly related to the "forecast problem of the day".

C. Model of Choice

Determine which model (if any) you think has the best handle on the weather situation and give reasons for your choice.

D. Focus on the First and Second Periods

As with the SFD issued by the WSFO, most of your discussion should focus on the first two periods of the forecast. For the 4:30 am and 4:30 pm forecasts these two periods are the most important for coordination purposes. For the 10:30 am and 9:30 pm forecasts WSFOs rarely update beyond the first period. Therefore, concentrate on the new upper air data, the latest satellite imagery trends, meso analysis from ADAP, and the ETA model for a first period update.

E. MOS Guidance

Discuss which MOS guidance is preferred (if any) and why. Monitor how guidance has handled forecast temperatures the past few days or how it has handled similar situations in the past. Include this in your discussion. For example, MOS guidance for Green Bay has a 5 to 10 degree warm bias on clear cold nights with fresh snow cover. This type of local input is very useful to the forecaster.

F. Local Effects

A weather forecast must take into account local effects. Valley fog, lake effect snow, fog rolling in from the Great Lakes, a lake breeze that may enhance or inhibit thunderstorm development, etc. Local effects are a factor at many locations and should be an important part of your discussion. Since the intern/technician can focus on the local area forecast, your information may provide valuable insight to the forecaster at the WSFO, who forecasts for large geographical areas. Also, briefly mention any local studies that relate to the forecast problem at hand that may be useful.

G. Local Forecast

It is a good idea to prepare a local forecast at the end of your discussion. It familiarizes you with the format used at forecast offices.

H. Watch, Warning, Advisory

Include the "Watch, Warning and Advisory Code" for your local area.

The forecast discussion should reach the WSFO at least one half hour before the scheduled SFD transmission time. This gives the public forecaster enough time to consider your input. Usually the WSFO forecaster will coordinate the forecast with the WSOs by telephone. This is an opportunity to provide any additional support for the forecast if the forecaster does not agree with your assessment. Healthy discussions are possible and valuable to both parties. Just remember, the WSFO has the final say about what goes into the forecast.

Standard abbreviations and contractions should be incorporated into the product (CR ROML C-09-88 lists the most commonly used contractions). Here is an example:

ZCZC MKEADMGRB  
TTAA00 KGRB 260758

TO: WSFO MKE PUBLIC FORECASTER  
FM: WSO GRB MOEDE

DWPNTS CONT TO RISE AS MSTR ADVECTS INTO N WI ON SRLY WND S AHD OF PLAINS STORM. EACH MODEL TRACKS THE UPPER AIR VORTEX IN THE FAST NW FLOW DIFFERENTLY. THE AVN AND NGM ARE HUNDREDS OF MILES APART...WITH A COMPROMISING ETA. STLT IMAGERY INDICATES THE VORTEX IS JUST NORTH OF ND...WHICH WOULD INDC THE NGM HANDLING SYSTEM THE BEST AT THIS TIME.

FCST PROBLEM TDA IS DETERMINING WHERE AND HOW MUCH SNW WILL FALL. STG WAA PRODUCING SNW ACRS E MN THIS AM. ISENTROPIC CHART BRINGS 2-3 G/KG INTO N AND CNTRL WI ARND 12Z. AT THE SAME TIME NGM BRINGS STG MID-LEVEL JET INTO NE WI. WITH FAST PACE OF STORM LOOKS LIKE A QUICK 1-2 INCH SNOWBURST PSBL WITH GUSTY WINDS PRODUCING BLOWING SNOW. LLWS QUITE PSBL TDA WITH +6 VV OVR N-CNTRL WI AT 12Z.

GENERALLY CLDY TNGT AND WED WITH INTMT FLURRIES AS FLOW REMAINS CYC. NGM MOS TEMPS LOOK RSNBL.

.TODAY...WINDY WITH A 90 PERCENT CHANCE FOR LIGHT SNOW. AROUND AN INCH OF ACCUMULATION EXPECTED. HIGH IN THE LOWER 30S. SOUTHWEST WINDS 15 TO 25 MPH AND GUSTY.

.TONIGHT...MOSTLY CLOUDY WITH FLURRIES. LOW IN THE MIDDLE 20S. WEST WINDS 10 TO 20 MPH.

.WEDNESDAY...MOSTLY CLOUDY WITH FLURRIES. HIGH IN THE UPPER 20S TO LOWER 30S.

.WI...NONE.  
MOEDE

### 3. Conclusions

There are many benefits to participants. Working on formats and deadlines similar to those in the forecast office provides important real-time training for future public forecasting positions. Getting feedback from the forecast office can only improve your forecast skills and promote a free exchange of ideas. Many forecasters welcome input from WSOs and participation in the forecast process can enhance your credibility.