

Summary of the Panel Discussion on:

"Professionalism in Forecasting and Briefing"

Panel:

Robert E. Pike, NWS (Ret)
C/MSgt. George Horn, AWS Hqs.
Ralph McDonald, Chief, FSS Boston, MA

Moderator:

Charles Sprinkle, NWSH, Silver Spring, MD

After Moderator Sprinkle introduced the panel, Bob Pike opened the discussion with the changing role of the aviation forecaster and briefer over the past several years. The forecaster has become separated from the briefer role mostly due to the tremendous increase in the briefing load. The FAA Flight Service Stations now do most of the pilot briefings. The FSS now has Weather Bureau Radar Remote (WBRR) Facsimile Lines at many locations and soon may also receive satellite photos as well. He discussed the complexity of making an area forecast (FA) over a large area for a long period of time. The FA is a product that needs evaluation of user needs. At present it serves as briefer guidance and yet must stand up to aircraft accident investigation. The terminal forecasts (FT) are a complex task to assemble, especially during periods of change when the forecast must be detailed to within small values such as ceilings of 200' and visibilities of a fraction of a mile. The inflight advisories (Airmets and Sigmet) are the most important aviation products. Transcribed Weather Broadcasts (TWEBs) are prepared for many well-traveled routes by the aviation forecaster for broadcast by the Flight Service Station. There is a continuing effort to improve the aviation program of the NWS, but changes in program format take much time to implement. Bob concluded with the hope that dialogue in meetings such as this will help to produce some of these changes.

C/MSgt. Horn brought us up to date on the current state of the briefing and forecasting art in the Air Weather Services. The enlisted personnel now perform most of the briefings, although cross-utilization of forecasting and briefing is a coming trend. He used several slides to show some of the forms and visual displays used in AWS briefing. A severe weather briefing chart is prepared 8 times a day. Flight weather briefing forms are widespread in use but have changed little over the past several years. Pilot briefing displays are standardized throughout the Air Weather Service. The latest communications available now and to be introduced shortly include the Dataspeed 40 CRT teletypes, the Automated Met Watch, and

the Modular Automated Weather System (MAWS). The Air Force is now undertaking a wind shear advisory program, and has a new verification form for wind shear.

Ralph McDonald then spoke on the FAA Flight Service Station briefing load. Between 90 and 95% of FSS briefings are telephone; the BOS FSS will brief as many as 1,000 pilots on a busy day. A briefer will spend about 25% of the time "handling" teletype paper and fax maps. Automated weather retrieval video systems will do much to improve this condition and will be implemented in 2 to 5 years. Other means of automated briefing assistance now being developed include self briefing via phone to a computer box in the WMSC center in Kansas City. This will utilize a computer voice response system which is monotonal but still efficient. But since this will be dissemination of raw data, this will benefit the experienced pilot. The inexperienced pilot will still be a problem since the data is not modified in any way. Ralph stressed that inflight emergency service is the most important single function of the FSS briefer. National Weather Service forecast products, both fax and teletype, are considered the lifeblood of the FSS briefer.

Charles Sprinkle cited the explosion in the general aviation field that is forcing new concepts in automation of observing and briefing. Presently, there are 168,500 licensed aircraft; by 1986 this figure will have swelled to 256,000. Pilot briefing on a one-to-one basis will be an impossibility, as there will be no money to provide this service. There are now 914 airports that are IFR approved and have no weather observations. Automated observations are increasing, but are very expensive. Charlie then invited questions from the audience to the panel members; here are some of the subjects that were covered.

Are the TWEBs considered a useful product, and who are the users? The TWEB at Boston is prepared by the NWS and disseminated by the FSS by telephone recording (PATWAS) and via radio (200-400KHZ) at VOR stations in Millinocket, ME and Boston and Hyannis, MA. The failure of the

system usually brings quick response from listeners, both flying and non-flying. A questionnaire given randomly to pilots a few years ago indicated a positive response to the TWEB in the BOS area.

Several questions were asked concerning the aviation forecast and the terminal forecasts. Does the aviation forecast policy on these products imply a skill that does not exist? Response generally recognized the responsibility and complexity of preparing an aviation forecast for a large area, affected by many geographical features, over a long period of time, adapting the terminal forecasts of 7 different forecast offices. Often, an area forecast can be so complex that many users are limited to using only a small portion of the FA. Terminal forecasts are often prepared in rapidly changing conditions and require accuracy to within a few hundred feet and a fraction of a mile. It was suggested that the FA be issued earlier, prior to the FTs, and become a guidance type of product issued at least 3 times a day. More coordination between WSFOs is needed under the current system of writing FAs. The quality of briefing by FSS briefers was compared to that of the NWS briefers. There is a problem getting through to an FSS station for a briefing on a busy day.

Moderator Sprinkle mentioned a few new products that will appear in the near future. Included were the SIGRAD, a bulletin incorporating significant

radar echoes of VIP Level 5 and 6 that will use VOR stations for position identification. PATWAS route forecasts are now being tested for heavily traveled routes. The FAA is now experimenting with a touch-tone automated phone system where a pilot can call for individual station weather observations.

Also discussed was the difficulty of providing all the information a pilot needs with the accuracy a pilot desires. A realistic approach to basic pilot needs is all that can be provided without resulting to details that will be too confusing. Staffing is a problem at both FSS and NWS briefing stations on active weather days.

The concept of having individual WSO stations issuing their own FTs was discussed. Here, the WSFO would issue the FT for the period beyond 6 hours for NWS stations and for the entire period for FSS stations. The need for more meteorological training for FSS briefers was cited.

The final discussion centered on the future of the meteorologist and briefer in the Air Weather Service. The meteorology school is now a combined Air Force and Navy School. The quality of briefing should not suffer even though the school term has been shortened.

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