

**Western Region Technical Attachment  
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**NMC MODELS AND STATISTICAL GUIDANCE  
PRESENT AND FUTURE**

As part of the NWS effort to improve products and provide the necessary guidance support to field offices in the future, changes to current models and new models are being planned. The following discussion is a look where NMC/OSD are going with regard to model statistical guidance development.

Figure 1 is a simplified "road map" for providing dynamical and statistical guidance to field stations from NMC from the present through the national restructuring period. At present, a full MOS guidance package based on the LFM model is available twice a day to field stations for projections out to 60 hours. Also, a partial MOS package developed on the NGM model is currently operational and will be completed in late FY 91. It is expected this guidance will be more accurate than the existing LFM-based package, and the LFM model, and its MOS, will then be discontinued.

The present perfect prog (PP) max/min temperature forecasts for projections out to 10 days and MOS forecasts of max/min for PoP for projections out to 6 days, based on the MRF model, which are available once per day only to NMC forecasters, will be replaced by a new PP system. Forecasts of max/min, PoP, winds, and clouds--the major elements in public weather forecasts--will be available once per day for projections out to 7 days. This PP system will be transferred to the new global model scheduled for early FY 92, and together with the NGM guidance for the 1-2 day range will support the computer assisted preparation of public and related products at WFOs when AWIPS is initially implemented.

A new modified PP system for projections out to 60 hours twice per day, and on out to 7 days once per day, will be developed to run on the new global model output and will be implemented in stages during FYs 93-95. This system will be available about the time of the first AWIPS upgrade (FY 95) and should be at least as accurate as the NGM-based MOS. If that is indeed the case, the NGM and its MOS will be discontinued, and the guidance based on the new global model--with increased time and space resolution--will support computer-assisted product preparation at WFOs beyond early FY 95 for all routine products including aviation. This guidance will be updated, as often as hourly as needed, for the first 18 hours or so, by a locally run technique.

A new high-resolution, mesoscale (or storm) model will be available by FY 92. Available computer power may require that this model be run over a relatively small domain initially. The domain will be movable, permitting focus on mesoscale guidance for MARD or on critical storm events. The model may be run as often as four times per day. However, the development of statistical forecasts from the output of this model is not planned at this time.

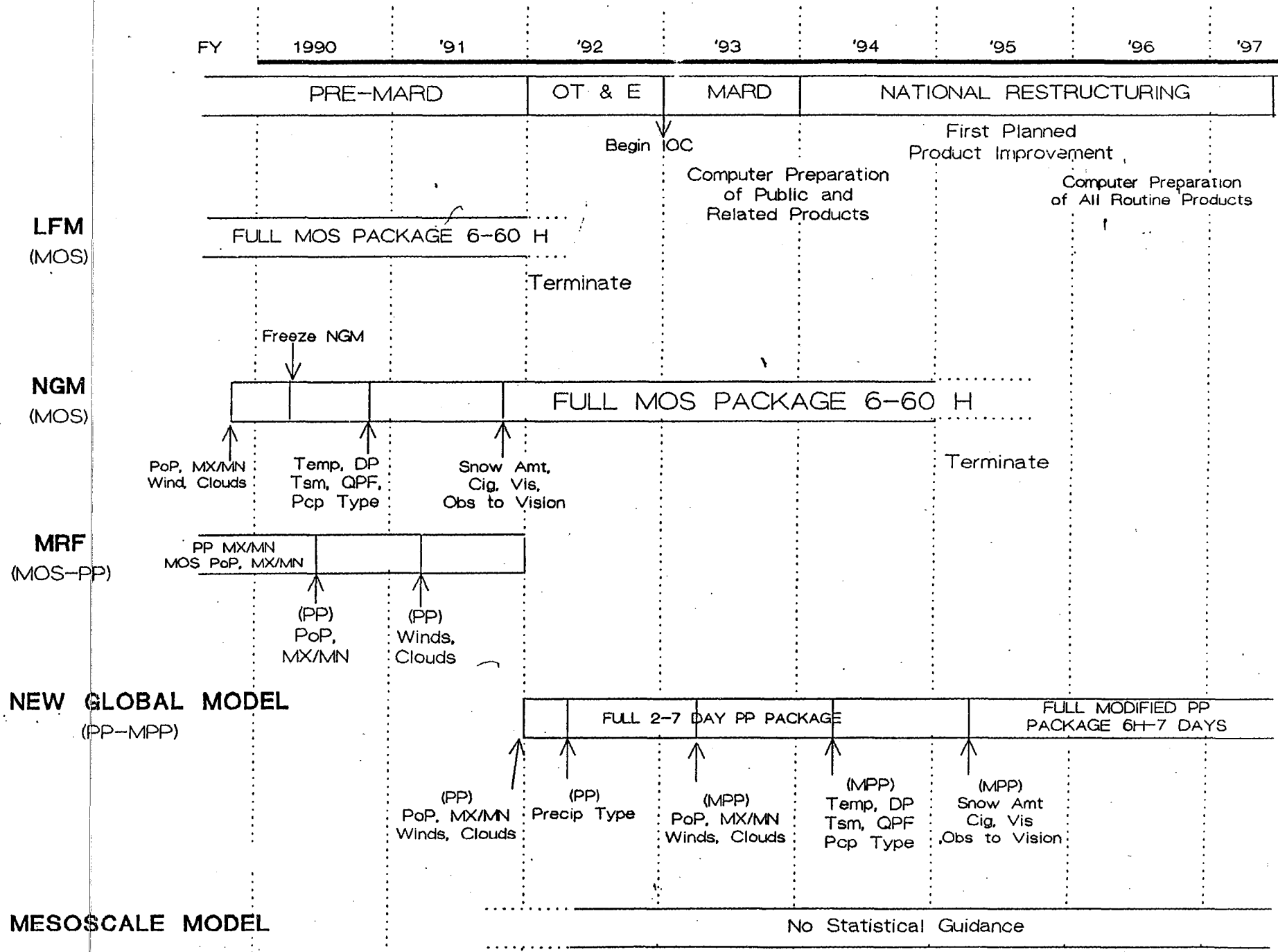


Figure 1