Western Region Technical Attachment
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HIGHLIGHTS FROM SSD CHIEFS' MEETING MAY 4-8, 1992

Following are a few highlights from the recent SSD Chiefs' Meeting at NWSH.

- GOES-I appears to be back on schedule again. There haven't been any delays for several months now. Scheduled launch date is December 1993. GOES-J is scheduled for launch in December 1994.

- NWSH is hoping to award the AWIPS contract late this year. The first systems should be arriving in the field in 1995 and be fully deployed throughout the NWS by the end of 1997.

- The effective date for new requirements of the GS-1340 Meteorologist series has been slipped. The new tentative effective date is January 1, 1995. This delay will give universities time to provide the necessary courses which will allow graduates to qualify for the federal meteorologist job series. These new standards will not affect meteorologists already in government service, but this date is important to met techs planning to cross over. To qualify under the current standards, the requirements must be completed by January 1, 1995.

- The future of the San Jose State University course for met tech cross-over candidates is uncertain. Informal surveys suggest there may be enough interest for one more course, which would probably be held in 1994.

- COMET -- The professional development workstations (PDW) for the COMET computer-based learning (CBL) modules should begin arriving in the field by mid-summer. One major problem--the FAA will not be purchasing the PDWs for the CWSUs from this contract. The FAA may procure the CWSU PDWs at a later date--this issue is still up in the air.

  The first two CBLs on Doppler interpretation and convective initiation have been mailed out to the regional headquarters, where they will be stored until the PDWs arrive in the field. CBL module number 3, Heavy Precipitation and Flash Flood Forecasting, will be available by fall.

  The next eight-week COMAP course for SOOs will be held March 9 - May 5, 1993.

- NMC is planning to form a National Precipitation Prediction Unit (NPPU). This is not so much a new unit as it is developing a closer working relationship between the NESDIS Satellite Analysis Branch and the Heavy Precipitation Branch of the Meteorological Operations Division. The NPPU will focus on providing more accurate QPFs, out to 72 hours, by integrating new satellite techniques and NEXRAD data.

- The NMC overload problem has abated for now. The NMC models run on the Cray; the post-processing is done on the front-end computers. From late last year through March 1992, overloading of the front-end computers caused product delays in the field, especially the 12Z runs. Through internal rescheduling and by moving the LFM run up by 15 minutes, NMC is back to near normal. However, both the Cray and the front-end computers are still operating at near saturation. As Dr. McPherson put it, the throughput is in "a state of unstable equilibrium". The slightest imbalance will result in instant gridlock. The current situation will continue into early fall. In September or October, a new front-end processor will be added, which will improve post-processing throughput. NMC is hopeful that a Class VII Cray can be delivered by the spring of 1993, to help the existing Cray with the back-end processing.

  Dr. McPherson stated that one of the biggest breakthroughs in product improvement in the last 25 years has been the recent success of the interactive satellite sounding retrieval scheme. In very basic terms, instead of using the polar orbiter soundings over the oceans as the first guess for the models, the model sounding now serves as a first guess. This is possible because the models have improved so much in recent years. Through an iterative process using the model soundings and polar orbiter retrievals, much more realistic representations of the troposphere over the oceans has resulted.

- The NWS Telecommunication Gateway will be moved from the Federal Office Building #4 in Camp Springs to NWSH in Silver Spring by early June. This should be transparent to the field.

- With the recent addition of the 925 mb level to the mandatory sounding requirements, a few offices have requested a 925 mb plotfile. The SSD Chiefs did not feel this was a high priority item, especially in view of the current congestion (the plotfile would be produced by the front-end processor). Therefore, the request will be tabled till the end of this year.

- One-dot vs. two-dot analyses -- There was a proposal to drop the one-dot analysis plot files of the mandatory levels. This proposal was put on hold since these analyses are such small files and since the one-dot analyses serve as a back-up for the two-dot analyses.

  Some information about these analyses. The one-dot analyses are generated by the Office of System Operations, not NMC. There is no quality control of the data in the one-dot analyses, and they do not compute 12-hour height changes. The one-dot analyses are typically available at 1 + 25 past 00Z and 12Z, about 25 minutes ahead of the two-dot files.

  The two-dot files are generated by NMC, are quality controlled, and contain height changes. These are typically available at 1 + 50.

- Support is gaining for a proposal to procure science application computers for the SOOs and DOHs, beginning in FY 94. The primary purpose of these computers is to facilitate on-site applied research.

- Joe Kendall, Chief, Operations Training Branch, OSF, reported that six WSR-88D Operations courses have now been taught. So far, everyone has passed. Kendall stressed, however, that the course is not easy--the pace is fast and the tests are tough. Up to this point, everyone has come well-prepared. The OSF is now teaching two full courses concurrently and will be going to three concurrent courses in 1993, to meet the growing demand as the WSR-88Ds are installed. The Training Branch employs 13 instructors and will be adding 9 more this fall.

- A few years ago, analysis of severe weather verification statistics in a few states, including Oklahoma, revealed that scores were substantially higher (better) near large population centers and NWS offices. Graphically, these scores appeared as "bulls-eyes" on contoured charts. Severe weather verification statistics for WFO Norman for March-December 1991, show that this anomaly has been erased. As shown in the attached chart, the statistics are not a function of distance from the forecast office anymore. This is a testimony to the effectiveness of the WSR-88D in identifying severe weather throughout its operating range.

- NWS Training Center

  - The Forecaster Development Course will be revised later this year to include sessions on--

    * Modernization and Associated Restructuring,
    * importance of training and professional activities,
    * and increased time spent on forecast training exercises.

  - A two-week course is being developed for the warning coordination meteorologists. It will be available in 1993.

  - A three-week course is also being designed for the hydrometeorological technicians (HMT), and should also be available starting in 1993.

  - The current Flash Flood course will evolve to include a stronger emphasis on hydrology.

SEVERE WEATHER VERIFICATION STATISTICS

From WSFO Norman, March – December, 1991

As a Function of Distance from Office