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Chanhassen Weather Forecast Office Generally Provides Effective Forecasts, But Office Management and Regional Oversight Need Improvement

Final Inspection Report No. IPE-14423/March 2002

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MEMORANDUM FOR: Conrad C. Lautenbacher, Jr.
Under Secretary for Oceans and Atmosphere

John J. Kelly, Jr.
Assistant Administrator
National Weather Service
National Oceanic and Atmospheric Administration

FROM: Johnnie E. Frazier

SUBJECT: Final Inspection Report: *Chanhassen Weather Forecast Office Generally Provides Effective Forecasts, but Office Management and Regional Oversight Need Improvement* (IPE-14423)

As a follow-up to our February 12, 2002, draft report, this is our final report on the inspection of the Chanhassen, Minnesota, Weather Forecast Office. The report includes comments from NOAA's written response. A copy of this response is included in its entirety as an attachment to the report.

The WFO staff is providing valuable weather products and services. Most of the office's key verification statistics indicate that the office provides timely and accurate severe weather forecasts except for flash-flood warnings. However, despite its reasonably good forecasting record, we have several concerns about the administrative operations of the Chanhassen WFO.

Please provide your action plan addressing the open recommendations in our report within 60 calendar days.

We thank the personnel in NWS headquarters, the Central Region, and the Chanhassen WFO for the assistance and courtesies extended to us during our review. If you have any questions about our report or the requested action plan, please contact me on (202) 482-4661, or Jill Gross, Assistant Inspector General for Inspections and Program Evaluations, on (202) 482-2754.

Attachment

TABLE OF CONTENTS

Page

EXECUTIVE SUMMARY

Pursuant to the authority of the Inspector General Act of 1978, as amended, the Office of Inspector General conducted an inspection of the National Weather Service's (NWS) Weather Forecast Office (WFO) in Chanhassen, Minnesota. Our fieldwork was conducted from September 10 through 14, 2001. We also conducted interviews and reviewed files and other pertinent information at NWS headquarters from August 20 through November 2, 2001. The objective of this inspection was to determine how effectively the Chanhassen WFO (1) delivers warnings, forecasts, and other information to its service users; (2) coordinates its activities with state and local emergency managers; and (3) manages its network of observers and volunteer spotters. In addition, we assessed the adequacy of the office's management, its internal controls, and its compliance with Department, National Oceanic and Atmospheric Administration (NOAA), and NWS policies and procedures. We also assessed the effectiveness of NWS's regional oversight. This is the fourth in a series of OIG inspections of individual WFOs.

NWS, an agency within NOAA, has 121 WFOs nationwide. Each WFO issues local weather forecasts and warnings of severe weather—such as tornadoes, severe thunderstorms, floods, hurricanes, and extreme winter weather—for its assigned counties. In the spring of 1995, the Chanhassen office increased its responsibilities due to the expected closure of two nearby Weather Service Offices. The expansion carried with it additional duties, including issuing warnings for 51 counties, instead of 23, and the Radiosonde Upper Air Observing (Upper Air) Program. The Upper Air Program uses balloon-launched, weather-sensing devices that transmit weather conditions aloft to the WFO by radio transmitter. At the time of our review, the office had a staff of 25 and serviced a warning area covering 51 counties in southern and central Minnesota and west central Wisconsin.

The WFO uses various technologies and programs to help protect the citizens in its county warning area. In addition to the Upper Air program, radar, satellite, and automated surface observing systems are used to prepare forecasts and issue warnings for all types of severe weather. NWS commissioned the Advanced Weather Interactive Processing System in Chanhassen on May 4, 2000, to integrate NWS meteorological and hydrological data with NWS satellite and radar data, enabling forecasters to prepare and issue more accurate and timely forecasts and warnings.

In performing this review, we examined pertinent records and documents and interviewed all of the available staff at the Chanhassen WFO. We also interviewed the regional director and some of his staff in Kansas City, Missouri, as well as other representatives from the Commerce Department, and other federal, state, and local government officials, including emergency managers. In addition, we spoke with private-sector representatives involved in meteorological activities to obtain their assessment of the services provided by the Chanhassen WFO as well as to solicit any suggestions they had for improving the office's provision of critical weather information.

We found that the Chanhassen WFO generally provides effective weather products and services, but office management and administrative deficiencies need prompt attention by NWS and WFO managers. More specifically, we found that:

- **The WFO's weather forecasts and warnings are generally timely and accurate, except for the flash-flood warning lead-time.** Based on our discussions with WFO personnel and users of the WFO's services, and a review of the office's records, we attribute the office's overall commendable performance record to the staff's commitment and extensive experience forecasting local weather patterns and climatic conditions. However, the WFO provided only 8 minutes average lead-time for flash floods compared to the Central Region's average of 45 minutes advance warning. To improve its flash-flood forecasts, office staff believe it would be helpful for NWS officials to provide them with clearer guidance on how to more effectively use the forecast criteria in determining what conditions must be present to issue flash-flood warnings for their specific terrain (see page 6).

- **The Outreach Program to the community is effective.** The Chanhassen staff has undertaken a very strong outreach program to emergency managers, the media, local schools and community groups. We interviewed several public officials and emergency managers in the metropolitan area of Minneapolis/St. Paul to determine the effectiveness of the Chanhassen WFO's outreach program. We also reviewed WFO monthly activity reports to determine the frequency and breadth of outreach efforts with the local community and received very positive feedback from users about their interaction with WFO staff and the quality of services they received. Overall, it appears that the office's outreach program is effective (see page 11).

- **Chanhassen's Skywarn and Cooperative Observer Programs are well run.** The office has effective Skywarn and Cooperative Observer programs in place. The Cooperative Observer Program relies on volunteer observers to report on weather events. The Skywarn Program, which trains volunteer spotters to provide the WFO with timely and accurate severe weather reports, is particularly successful as a result of the staff's outreach to the community to recruit new volunteer spotters and hold pre- and post-severe weather season meetings with them. (see page 13).

- **Office's Training Program could be improved.** Although the WFO staff generally received the training they requested, a more comprehensive list of available training should be provided to them. Individual development plans also needed to be completed for all members of the staff (see page 15).

- **Maintenance of Information Technology (IT) resources is good.** The WFO's information technology resources (computer hardware and software, weather radar) are well maintained. Although the electronic systems analyst also fulfills the duties of an information technology officer, the office has a good IT program with an approved IT security plan, a risk analysis, and a contingency plan in place (see page 16).

- **Administrative operations lack adequate internal controls.** Our review of the WFO's administrative operations included its use of purchase cards and convenience checks, personnel, time and attendance, procurement, accountable property, and use of government vehicles. We found that weak internal controls over the use of government purchase cards and convenience checks and inadequate maintenance of accountable property records leave the office open to theft and waste of government resources. The WFO's purchase cards and convenience checks have been used inappropriately for some WFO purchases and to pay bills of other NWS units (see page 17).

- **Regional oversight should be improved.** NWS regional offices are responsible for offering management support to and overseeing the management, programs and administrative operations of the WFOs in their region. The Central Region headquarters in Kansas City, Missouri, should improve its oversight of the Chanhassen WFO by conducting on-site reviews of its management, program, technical, and administrative operations (see page 27).

On page 29, we offer a series of recommendations to the NWS Assistant Administrator and the Director, NWS Central Region, to address concerns raised in this report.

In its response to our draft report, NWS concurred with all of our recommendations. NWS officials stated that they have taken corrective action on three of the nine recommendations, and have developed an implementation schedule for the six remaining recommendations.

INTRODUCTION

Pursuant to the authority of the Inspector General Act of 1978, as amended, the Office of Inspector General conducted an inspection of the National Weather Service's (NWS) Weather Forecast Office (WFO) in Chanhassen, Minnesota.

Inspections are special reviews that the OIG undertakes to provide agency managers with timely information about operational issues. One of the main goals of an inspection is to eliminate waste in federal government programs by encouraging effective and efficient operations. By asking questions, identifying problems, and suggesting solutions, the OIG hopes to help managers move quickly to address problems identified during the inspection. Inspections may also highlight effective programs or operations, particularly if their success may be useful or adaptable for agency managers or program operations elsewhere.

This inspection was conducted in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency. Our fieldwork was conducted from September 10 through 14, 2001. We also conducted interviews and reviewed files and other pertinent information at NWS headquarters from August 20 through November 2, 2001. During the review and at its conclusion, we discussed our findings with the meteorologist-in-charge (MIC) of the Chanhassen WFO, the director of NWS's Central Region in Kansas City, Missouri, the Assistant Administrator for NWS, and other NOAA senior managers.

OBJECTIVES, SCOPE, AND METHODOLOGY

The objective of this inspection was to determine how effectively the Chanhassen WFO (1) delivers forecasts, warnings, and other information to its service users, which include the general public; (2) coordinates its activities with state and local emergency managers; and (3) manages its network of observers and volunteer spotters. In addition, we assessed the adequacy of the office's management and its internal controls and compliance with Department, NOAA, and NWS policies and procedures. We also assessed the effectiveness of regional oversight. This is the fourth in a series of OIG inspections of WFOs nationwide.[1]

In performing our review, we examined pertinent records and documents and interviewed all of the available staff at the Chanhassen WFO. We also spoke by telephone with the regional director and some of his staff, and interviewed many representatives from the Department and other federal, state, and local government agencies. In addition, we spoke with individuals outside of the federal government who are involved in meteorological activities and work closely with the Chanhassen staff to obtain their assessment of the services provided by the WFO as well

[1] (1) *Raleigh Weather Forecast Office Provides Valuable Services but Needs Improved Management and Internal Controls,* Final Inspection Report No. IPE-12661, Office of Inspector General, September 2000, (2) *San Angelo Weather Forecast Office Performs Its Core Responsibilities Well, but Office Management and Regional Oversight Need Improvement,* Final Inspection Report No. IPE-13531, Office of Inspector General, June 2001, and (3) *Missoula Weather Forecast Office Generally Provides Quality Service to Its County Warning Area,* Final Inspection Report No. IPE-14225, Office of Inspector General, September 2001.

as to elicit any suggestions they had for improving the WFO's conveyance of critical weather information.

BACKGROUND

NWS, an agency within NOAA, has 121 Weather Forecast Offices nationwide, and every U.S. county is assigned to a specific WFO for weather warning purposes. Each office issues local forecasts, such as periodic zone forecasts, and warnings of severe weather, such as tornadoes, severe thunderstorms, fires, floods, hurricanes, and extreme winter weather, for their assigned counties. The offices, where applicable, also support NWS's marine, aviation, and climatic data collection programs and prepare guidance for the fire weather program, which supports federal lands management and wildfire control. The WFOs are responsible for effectively using advanced meteorological technology to issue weather predictions and continue to improve the timeliness and accuracy of forecasts and severe weather warnings to the public.

In March 1995, the Weather Service Forecast Office was relocated from the Minneapolis Airport to Chanhassen. During this time, the office's County Warning Area expanded due to the transfer of counties from the expected closure of Weather Service Offices at Rochester and St. Cloud. These two offices officially closed on December 18, 1998. The Chanhassen office (Figure 1), shares its facility with two other NWS offices: (1) the North Central River Forecast Center, which is primarily responsible for providing timely issuance of river and flood forecasts to mitigate loss of life and property; and (2) the National Operational Hydrologic Remote Sensing Center, which provides hydrology products, applications, and data to support various local, regional, and national hydrology programs.

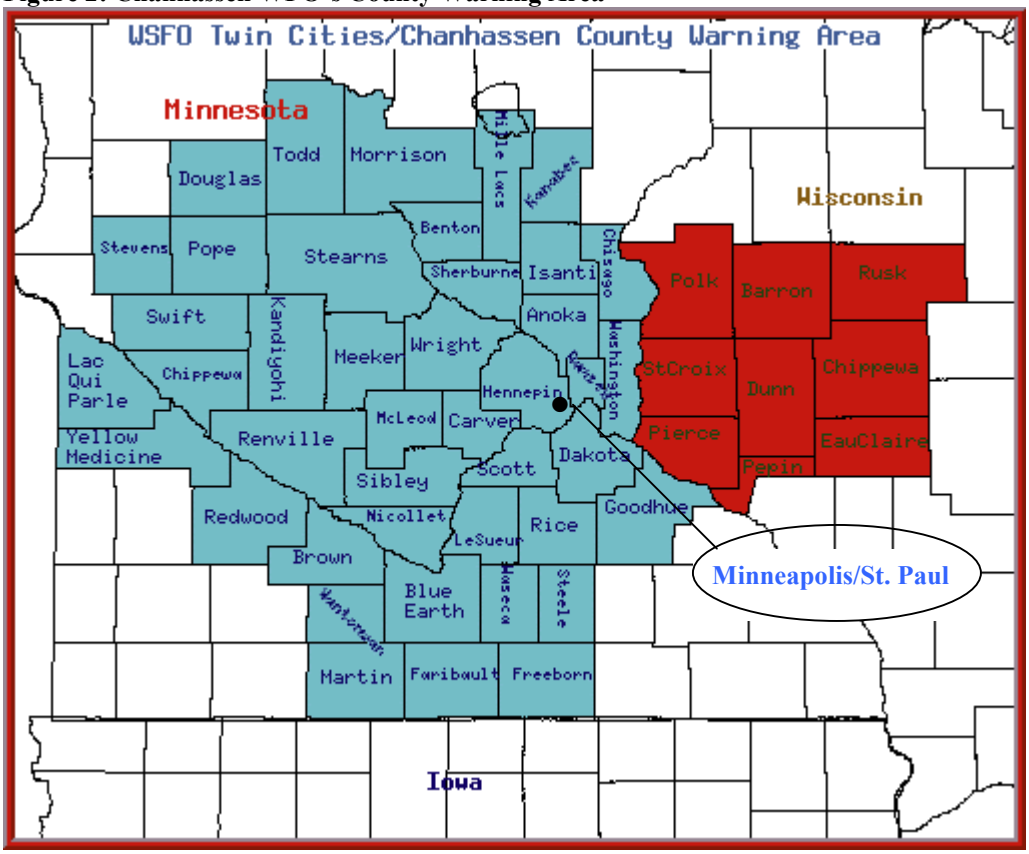
Figure 1: NWS Weather Forecast Office, Chanhassen, Minnesota

At the time of our review, the Chanhassen WFO had a staff of 25 employees: a meteorologist-in-charge, a warning coordination meteorologist, a science and operations officer, a data

acquisition program manager, an electronics system analyst, an administrative assistant, five lead forecasters, five journeyman forecasters, five hydrometeorological technicians, two electronic technicians, a sector facilities technician, and a regional maintenance specialist.[2] At the time of our review, the WFO's fiscal year 2001 training, travel, purchases, and equipment budget was $31,725. The WFO has a satellite office located at the Federal Aviation Administration's Air Route Traffic Control Center in Farmington, MN, which is staffed with an MIC and three meteorologists.

The Chanhassen WFO, located in NWS's Central Region, has weather forecast and warning responsibility for 51 counties (including the twin cities of Minneapolis/St. Paul) in most of southern and central Minnesota and part of west central Wisconsin (shown in Figure 2 below). The Central Region Headquarters, located in Kansas City, MO, is responsible for 38 WFOs and 2 River Forecast Centers (RFCs).

Figure 2: Chanhassen WFO's County Warning Area



Source: National Weather Service

WFOs use various technologies and programs to help protect the citizens in their county warning areas. Radar, satellite, and automated surface observation systems are used to prepare forecasts and issue warnings for all types of severe weather. The Advanced Weather Interactive

[2] The sector facilities technician and the regional maintenance specialist are Central Region office employees who work out of the Chanhassen WFO.

Processing System (AWIPS) in Chanhassen was commissioned by NWS on May 4, 2000. AWIPS, an interactive computer system that integrates NWS meteorological and hydrological data with NWS satellite and radar data, is designed to enable forecasters to prepare and issue more accurate and timely forecasts and warnings. The WFO's radar (shown in Figure 3) is located approximately 100 feet behind the office complex and 1045 feet above sea level. The WFO has an active Radiosonde Upper Air Observing (Upper Air) Program with balloon launches twice daily—5 a.m. and 5 p.m. during the winter months, and 6 a.m. and 6 p.m. during the summer months. The upper air tower is located approximately 150 feet southeast of the office (also shown in Figure 3).

Figure 3: Chanhassen WFO Radar (left) and Upper Air Tower (right)

NWS is in the process of implementing a new Interactive Forecast Preparation System (IFPS), which is a component of AWIPS. IFPS is a sophisticated software program, developed to integrate the Interactive Computer Worded Forecast and the Advanced Forecast Preparation System. It provides interactive tools that allow forecasters to interpret and edit grids of weather elements and to generate products in various formats from the digital database.

To effectively provide early warnings and collect important climatological data, the WFO must rely in part on its many partners. For example, state and local emergency managers are vital components of the WFO's efforts to disseminate critical weather information to the public, and the WFO plays an important role in state and local officials' efforts to keep abreast of severe weather events. Other partners include media representatives and Skywarn and Cooperative Observer volunteers.

The office's Skywarn program, part of a nationwide effort, trains volunteer spotters to provide the WFO with timely and accurate eyewitness severe weather reports. The Cooperative

Observer Program uses volunteers to provide daily weather measurements, including rainfall and snowfall amounts. The meteorological community considers both programs to be critical to verifying and collecting data to improve forecast models and to recording accurate climatic data. After developing weather forecasts and obtaining critical information from its partners, the office disseminates that information to the general public through NOAA Weather Radio, the Internet, and other means.

FINDINGS AND CONCLUSIONS

I. WFO's Weather Forecasting Is Generally Effective

We examined the Chanhassen WFO's performance statistics to determine whether it has been issuing timely and accurate weather products to the public. Every WFO prepares and issues general or zone[3] forecasts, severe weather and flood warnings, advisories, and specific forecasts for each of its weather programs. As shown in Table 1, on page 7, verification statistics show that the office's weather forecasts have, in general, been timely and accurate when compared with the Central Region average, except for the hydrology program's flash-flood warning lead-time. Based on our discussions with WFO staff and users of the WFO's services, as well as a review of the office's records, we believe that the office's commendable performance record is due to the staff's commitment and extensive experience (several with 20 or more years with the office) forecasting local weather patterns and climatic conditions for their county warning area (CWA), including the twin cities of Minneapolis/St. Paul. The managers and forecast staff at Chanhassen believe that they have been able to effectively accomplish their mission due to the staff's extensive experience and their understanding of the regional weather patterns for their county warning area (CWA), including the twin cities of Minneapolis/St. Paul. We noted that the probability of precipitation program (POP) showed improvement over the model guidance, and the WFO's POP statistics met or exceeded the National Weather Service (NWS) Central Region average.

To determine the WFO's overall effectiveness, we also interviewed WFO personnel and numerous emergency management officials, and television and radio meteorologists who work closely with the office. Both external groups stated that the office provides valuable weather services.

A. WFO's verification statistics compare favorably, except for flash-flood warnings

Overall, the Chanhassen WFO's forecast accuracy compared well with the averages for the Central Region, although the timeliness of its flash-flood warnings could be improved. The WFO provided only 8 minutes average lead-time for flash floods compared to the region's average of 45 minutes advance warning.

Table 1 compares Chanhassen's performance with the average for all Central Region WFOs. We used the same criteria and guidelines followed by NWS headquarters and Central Region officials to evaluate the performance of individual WFOs. Central Region officials told us that they consider the verification statistics for all five weather programs in determining the effectiveness of a particular WFO's forecast program. The officials stated that they do not have

[3] Each WFO has a county warning area that is divided into zones, comprising single or multiple counties that are often large and topographically diverse. For each zone, the Chanhassen office issues zone forecasts that include temperature (max/min), probability of precipitation (POP), precipitation type, cloud type, cloud amount, snow amount, and wind direction and speed. The Chanhassen office issues two seven-day extended zone forecasts every day.

a guideline for margin of error for any variance occurring for each of the verification statistics. They stated that they intend to add the forecast goals for the region in their next strategic plan and, when possible, apply these same goals at the WFO level. Based on the verification statistics shown in Table 1, we found that WFO Chanhassen's winter weather, aviation, severe storms, and probability of precipitation programs all scored fairly close to the regional average. In our discussions with NWS Central Region and headquarters officials, all agreed that Chanhassen had a generally effective forecasting record, except for the flash-flood warning lead-time.

Table 1: Chanhassen Verification Statistics for FY 2001

	Central Region Average	Chanhassen WFO	Better Than/ Equal To Regional Average	Worse Than Regional Average
Flash-Flood Program				
False alarm ratio	.41	.14	X	
Probability of detection	.85	.88	X	
Lead-time[1]	45.1 minutes	7.9 minutes		X
Winter Weather Program				
False alarm ratio	.26	.17	X	
Probability of detection[2]	.91	.89		X
Lead-time	12.2 hours	12.8 hours	X	
Aviation Program Probability of Detection				
All cycles/projections, ceilings <1000 feet	.37	.36		X
All cycles/projections, visibility <3 miles	.27	.26		X
Tornado Program				
False alarm ratio	.66	.58	X	
Probability of detection	.73	.77	X	
Lead-time	11.0 minutes	10.8 minutes		X
Probability of Precipitation Program				
Forecasts improved over model guidance:				
24-hour forecast	4.0%	8.6%	X	
36-hour forecast	4.2%	8.1%	X	
Percent of correct forecasts:				
24-hour forecast	87.7%	87.3%		X
36-hour forecast	86.6%	87.7%	X	

[1] Lead-time is the interval between when a warning is issued and when an event reportedly occurs.
[2] The probability of detection shows the fraction of all severe events (for example, tornadoes, thunderstorms, heavy snowfall) for which warnings were issued. Attempting to achieve a high probability of detection by issuing more warnings would tend to have the undesirable effect of increasing the false alarm ratio.

WFO needs guidance to help it issue more timely flash-flood warnings

The Chanhassen office's hydrology program is a critical activity. Located in the Upper Mississippi River Basin, the WFO provides vital watches, warnings, and advisories to protect life, property, and commercial navigation on that part of the river. Since 1983, the office has had an on-site service hydrologist[4] to oversee hydrology operations, train office personnel on flash floods and flood warnings, maintain flood forecast points, issue flood warnings, advisories and forecasts, and handle relations with emergency management officials and the media during flood events.

Statistics for the flash-flood program's false alarm rate and probability of detection compare favorably to the average for all other Central Region WFOs. However, the Chanhassen WFO provided a significantly shorter lead-time for issuing flash-flood warnings. According to Chanhassen's forecasters, this is due to a difference of opinion between them and other NWS officials as to when a flash flood is determined to be occurring; the range of opinion varies between the time when rainfall begins to the time when roads are flooded. NWS has criteria that WFOs can use to document the beginning of a flash flood and leaves the decision of when to issue a warning to the WFOs. According to the Weather Service Operations Manual, flash-flood warnings are to be issued when flooding is imminent. All WFOs have similar criteria on how they should predict or forecast flash-flood events. However, the Chanhassen WFO has not been performing as well as the average of other Central Region WFOs in issuing flash-flood warnings. In our discussions with officials at the WFO, NWS Central Region and NWS headquarters, they acknowledged the lack of specific criteria to be used when determining whether to issue flash-flood warnings, and none could further clarify when a forecaster should determine that a flash-flood warning should be issued.

The variables for WFO forecasters to consider when issuing such warnings depend on the topography of the area in question and whether the area is rural or urban. For example, the NWS Central Region includes the states of Wyoming and Colorado, and part of Kentucky—all of which have mountains or valleys that are susceptible to flash-flood conditions. The region also includes several Midwestern states that have comparatively flat terrains. Therefore, some WFOs in canyon areas may issue a flash-flood warning when heavy rains begin, whereas the Chanhassen WFO, in a flatter terrain, may not issue a warning until rainfall has accumulated and is significant enough to cause flooding on city streets.

The effect of a shorter lead-time is that the public has less advance notice in which to respond to the warning. We believe that the MIC, working with the Central Region, should strive to improve on the short lead-time record for the Chanhassen WFO. We urge NWS officials to provide the Chanhassen forecast staff with more useful guidance to use in determining what conditions must be present to issue flash-flood warnings for their specific terrain.

[4] Only selected WFOs have on-site service hydrologists.

In their response to our draft report, agency officials concurred with our recommendation that NWS headquarters and the Region work with the Chanhassen forecasters to determine how best to improve the WFO's flash-flood warning lead time. NWS officials stated that they have made changes to the Weather Service Operations Manual regarding the issuance of warning products for heavy rains occurring during existing river flooding. This is expected to significantly reduce the use of flash-flood warnings during river flooding events. In addition, NWS plans, by April 30, 2002, for the WFO Chanhassen forecast staff and service hydrologist to have completed case studies with the Weather Event Simulator to increase their proficiency during flash flood situations. Furthermore, Central Region Headquarters has collected a listing of best practices used by offices that have been very successful in the issuance of flash-flood warnings. The MIC and staff will incorporate the best practices into the Chanhassen WFO operation.

B. State weather forecast product may be unnecessary

The Chanhassen WFO issues a weather forecast for the entire State of Minnesota. Several of the forecasters stated that they believe the WFO should eliminate this forecast product because the information is available to users in other WFO products.

Most WFOs issue forecasts only for their county warning area. Because Chanhassen is the NWS liaison office for the State of Minnesota, it issues a forecast for the state, comprised of forecasts from the five other WFOs (Duluth, Minnesota; Grand Forks, North Dakota; Sioux Falls and Aberdeen, South Dakota; and La Crosse, Wisconsin) whose county warning areas include other portions of Minnesota. The statewide forecast product is very general, by necessity, because it covers varied climatology. Local users of weather products in the Twin Cities area, however, find the statewide information useful when making weekend travel plans. The specific information these users seek, however, is readily available through a variety of sources. For example, the user may access the websites of Chanhassen and the other WFOs, the Chanhassen WFO ring-through telephone line, NOAA Weather Radio, or the local television media to get statewide weather reports. However, there remain a small segment of users, such as media wire services or public radio stations, which have a statewide broadcast responsibility who prefer this forecast product. WFO officials told us that the Central Region is conducting a pilot test in Kentucky on the use of a digitized state forecast product, which may satisfy the needs of local users while also reducing the resources needed to produce a state forecast product. The MIC and the Central Region management should evaluate the costs and benefits of producing the state forecast product and make a decision as to whether the WFO should continue to issue it in its current format, issue it in a revised format, or eliminate the product entirely.

In their response to our draft report, agency officials concurred with our recommendation. NWS officials stated that they have evaluated the costs and benefits of producing the state forecast and concluded that it was beneficial to continue issuing it. This decision was based on NWS's

findings that the cost of providing the state forecast product was minimal, and there remains customer demand for it.

II. Office Outreach Program Is Effective

State and local emergency managers in the Minneapolis/St. Paul metropolitan area help citizens in their communities prepare for potential natural disasters, such as floods, tornadoes, blizzards, hail, and other emergencies that may affect public safety. WFO staff work with these managers to help increase public responsiveness to warnings and critical weather, better prepare users for extreme weather events, develop and strengthen partnerships, and increase user feedback to enhance NWS services.

While in Minnesota, we met with several state and local emergency managers who spoke highly of the cooperation and service received from the Chanhassen WFO. According to the officials, the Chanhassen WFO staff are available to discuss weather forecasts, conduct demonstrations, and provide general assistance. In addition to being generally pleased with the timeliness and quality of the office's forecasts and warnings, the emergency managers commended the WFO staff on their outreach program. For example, several emergency managers stated that WFO employees volunteered their time to speak at conferences and Skywarn and Rotary Club meetings, and they hold positions on various local weather-related boards.

In November 1999, the NWS published its *Fiscal Year 2000 Outreach Action Plan*, which outlines the steps that various agency components, including the WFOs, should consider in accomplishing their outreach goals. The Chanhassen WFO and its partners work well together in pursuing these goals.

Our review of various documented activities during fiscal year 2001 showed that the office implemented the action items in its plan. For example, the office staff participates in a multitude of school-related events to increase students' awareness of meteorology and weather safety. In fiscal year 2001, the office staff participated in 3 high school Career Days with total attendance over 300, provided 10 office tours to over 140 students, and made 3 weather safety presentations to 390 children at safety camps. The staff also supports students in other ways, such as career development workshops, and mentoring, to name a few.

The Chanhassen WFO staff also reaches out to help the community in several other ways. For example in fiscal year 2001, they presented several safety talks before various social clubs and community groups, and taught 81 Skywarn classes with a total of 2,666 attendees. The office also works hard to incorporate diversity, which is a major Central Region initiative, into its outreach program by providing tours to minority groups and participating in other minority-sponsored activities. For example, an office employee represented the WFO as an exhibitor during Black History Month at the Minnesota Science Museum. The office has also provided tours to various other groups and organizations (for example, the Boy Scouts, Girl Scouts and senior citizen groups). The office is currently working on its fiscal year 2002 outreach action plan.

The WFO also has good relationships with media representatives, which is important because the media are a key element in the WFO's outreach and information dissemination efforts. The media representatives with whom we spoke thought highly of the WFO's services and

responsiveness. Although they are meteorologists themselves, they value the insight and professional opinions of the WFO staff. During fiscal year 2001, the staff gave more than 50 interviews to television, radio, and newspaper representatives on subjects ranging from snow measurements to the Winter Storm Severity Index to Severe Weather Awareness Week and other general office weather services and products.

Generally, the office's external outreach program has been effective in improving the citizens' awareness of weather terminology, severe weather risks and precautions, and NWS products and services in the WFO's CWA. In addition, this program allowed the WFO to form excellent relationships with emergency officials, the media, and schools as a means of enhancing the office's public awareness activities and helping to improve the local communities' knowledge of weather conditions and readiness for weather emergencies.

III. Skywarn and Cooperative Observer Programs Are Well Run

The Chanhassen WFO's Skywarn and Cooperative Observer Programs are active and effective. Skywarn is an NWS program that, in collaboration with amateur radio operators, trains private citizens to become volunteer weather spotters. Skywarn spotters provide forecast offices with timely, accurate severe weather reports. The Cooperative Observer Program is a nationwide weather and climate-monitoring network of volunteers. Each volunteer observer regularly reports temperature and rainfall amounts to the local WFO so that forecasts and warnings can be issued and the climate of the United States can be recorded to help improve the accuracy of the agency's forecasts. However, the Chanhassen staff stated that they had concerns about future staff resources to support the observer program.

A. Skywarn program operates effectively

We found that Chanhassen's Skywarn program is well run and effective in carrying out its mission with the local community. In addition to seeking the help of amateur radio operators, the WFO staff enlists the aid of local law enforcement and emergency management personnel to become volunteer spotters. The WFO staff also holds orientation training for new spotters to acquaint them with the weather patterns and conditions that develop into severe storms events, such as tornadoes. An invaluable tool for the training programs is video footage of actual tornadoes in Minnesota. The Chanhassen staff has made a concerted effort to use videos of severe storms and updates these videos approximately every two years. The Chanhassen staff is able to train several hundred spotters each year by teaching advanced spotters to train new recruits. We believe the staff has developed a good orientation program for new spotters.

B. Cooperative Observer Program faces changes

The Chanhassen WFO's Cooperative Observer Program is also well run but faces potential changes in its staff resources. Although the WFO has well-trained individuals managing the program—one data acquisition program manager (DAPM) and five hydrometeorological technicians (HMTs)—it faces attrition. NWS headquarter officials have decided to (1) phase out the remaining DAPM positions nationwide when they become vacant, and (2) reduce, through attrition, the number of HMTs at each WFO to a maximum of three. According to the MIC, as the two "excess" HMTs positions become vacant, they will be replaced by meteorological interns. These interns would, in addition to their forecast duties, assume some of the responsibilities previously held by the HMTs in managing the Cooperative Observer Program. Currently, the DAPM and the senior HMT share responsibility for visiting observer sites and replacing and repairing weather gages. The other HMTs, in addition to their shift work, handle the bulk of the administrative work for the Cooperative Observer Program.

Many Chanhassen staff expressed concern that such a staffing scenario would leave the program short-handed in the future and would result in fewer visits to volunteer observers to maintain and replace gages. While the office appears to have adequate resources now to manage the program, it may experience a decline in support in the future. Although the hiring of meteorological interns should offset this decline, they will require training to assume their new duties.

In their response to our draft report, agency officials concurred with our recommendation to take appropriate action to ensure that the Cooperative Observer Program will be adequately supported. NWS officials stated that the program would be adequately supported if the WFO maintains a minimum of four staff members in the data acquisition unit, including three individuals in the DAPM or HMT job series and one meteorological intern. NWS further stated that should turnover occur, new staff members would receive Cooperative Observer Program training at the National Weather Service Training Center in Kansas City, Missouri.

IV. Office Training Program Could be Improved

Training and research projects are important ways that WFOs develop their staff and help them sharpen their forecast proficiency. The MIC at each WFO is responsible for ensuring that each staff member is properly trained and has the tools to successfully perform his or her job. Each WFO has a Science and Operations Officer (SOO), whose responsibility it is to carry out the training and research program in the office. The Chanhassen SOO stated that the staff's training needs were his primary focus at Chanhassen, and he puts less emphasis on research efforts.

Prior to our visit, the Chanhassen WFO did not have a structured training plan. Its training efforts were based on a very generic training program outlined in the NWS Annual Operating Plan. We found that the training program needs to be improved by (1) informing employees of available training and training requirements, and (2) completing individual development plans for each WFO employee.

In our interviews with the Chanhassen staff, some members expressed frustration with the dearth of information available about required and recommended training for meteorologists and HMTs. In addition to in-house training, we identified that training is available for NWS employees and is offered at several locations, including the Central Region headquarters, the NWS Training Center in Kansas City, Missouri, NWS headquarters in Silver Spring, Maryland, and at the Department of Agriculture's (USDA) Graduate School in Washington, DC. Training and research opportunities may also be available at local colleges and universities. We believe the MIC and the SOO should ensure that all staff have access (either in hard copy or via Internet) to a comprehensive list of all available training courses that are recommended or required. Subsequent to our visit, the MIC and the SOO have compiled a list of all available training offered by NWS, USDA, and the Federal Executive Board, and have provided us with a copy of their training plan. We have reviewed the plan and believe that it sufficiently addresses the training needs of the staff, and provides information on available training courses.

Furthermore, our discussions with the forecast staff revealed that only the MIC had a completed individual development plan (IDP). The MIC and the SOO stated that the initial drafts of IDPs prepared by the staff were incomplete and had to be returned to them for revisions. They told us that the IDPs were to be completed and implemented by December 2001, and will be updated on a fiscal year basis to coincide with the WFO's operating plan. Subsequent to our visit, we have been told that IDPs have been developed for the other members of the WFO staff. The MIC should ensure that all Chanhassen WFO employees have completed IDPs and start implementing them immediately.

Agency officials concurred with our recommendations to complete IDPs for all Chanhassen WFO staff members and provide them with information on and access to training programs. NWS officials stated that the list of training courses will be provided to all employees by March 31, 2002, and IDPs for all employees will be in place by April 30, 2002.

V. Maintenance of Information Technology Resources Is Good

The information technology resources for the Chanhassen WFO fall under the management of the office's Electronic Systems Analyst (ESA), who supervises two electronic technicians. In addition to being responsible for the office's IT security, the ESA works with the technicians to maintain and upgrade the office's computer hardware and software and the WFO's radar.

The ESA serves as the Information Technology Officer (ITO) for the Chanhassen WFO. We found the office had an approved IT security plan, a risk analysis, and a contingency plan in place. Every staff member is required to review the plan with the MIC once a year and initial all updates to the plan to attest that they have reviewed it.

Although we believe the ESA has been able to manage the IT security resources and environment at Chanhassen, he stated that it is at times difficult to keep abreast of ongoing maintenance of electronic systems and IT security issues for the office. He attributes the difficulty to minor emergencies that arise. To remedy the situation, the ESA developed trouble guides to help the forecasters trouble-shoot minor software or systems problems that they would normally call on the ESA to fix. He acknowledged that, with the growing emphasis on IT issues in general and the emphasis on IT security in particular, it would be helpful to have a full-time ITO in place in the near future. Central Region officials have told us that when the next DAPM, HMT, or meteorological intern leaves, the WFO will be able to hire an ITO to replace that person. In an interview with an NWS headquarters official, we confirmed that NWS plans to eventually have a full-time ITO at each WFO nationwide. As of November 2001, NWS had ITOs at 55 of the 121 WFOs.

VI. Administrative Operations Lack Adequate Internal Controls

Our review of the WFO's administrative operations included its use of purchase cards and convenience checks, personnel, time and attendance, procurement, maintenance of accountable property, and use of government vehicles. We found numerous internal control deficiencies in administrative and management practices at the Chanhassen WFO. Specifically, we determined the following: (1) office purchase card holders did not follow NOAA policies and regulations on proper use of purchase cards, (2) convenience checks were improperly used to pay some WFO costs as well as those incurred by other offices, and (3) there was a lack of adequate internal controls over accountable property.

A. Office staff failed to follow Commerce and NOAA regulations for purchase cards

At the time of our review, the Chanhassen WFO failed to (1) follow purchase card regulations, (2) use required sources of supply for purchases, and (3) demonstrate a need for the current number of purchase cardholders.

Office did not properly document its purchases or follow other purchase card regulations

In our review of Chanhassen's purchase card usage in fiscal years 2000 and 2001, we found that most cardholders did not maintain descriptive purchase order logs. Rather, they had vague descriptions, such as "office supplies," "building supplies," or "training." Cardholders also did not consistently attach original receipts or supporting documents to the purchase card statements for the MIC to review, as required. In addition, we were told that the MIC had been using a signature stamp to sign official documents, but had destroyed it just prior to our inspection visit, upon the recommendation of the Central Region office. The MIC did not ensure that there were adequate internal controls over purchase cards, nor did he provide adequate oversight to ensure that the cardholders adhere to regulations and procedures related to purchase card use. The lack of adequate controls provides the opportunity for theft and waste of government resources. During our review of the Chanhassen WFO, we also found an example of improper personal use of a government purchase card. This matter was first brought to our attention by the NWS Central Region, which visited the WFO just prior to our inspection.

The Commerce Acquisition Manual[5] clearly states that purchase cards are to be used for official, authorized purposes only; that purchase cards should be kept in a secure place; and that it is the responsibility of the approving official to ensure that the cards are used only for official purposes. It also requires that cardholders maintain a purchase card ordering log for all transactions, include detailed descriptions of the items purchased, and attach applicable mandatory approvals. This record should include a clear description of the itemized purchases, payments, returns, and credits; appropriate supporting documentation, including sales receipts; and the account statements with the MIC's approval signature. In addition, we recommend that the MIC consider having a centrally controlled log to help eliminate duplicate purchases. This

[5] Commerce Acquisition Manual, April 2000, Part 1313.301, "Department of Commerce Purchase Card Procedures."

would also make it easier for the MIC to track his budget and the office's procurement activity, allow for better inventory reconciliation, and, in turn, help save money. The MIC should carefully review and sign all purchase card statements and report any incidents of misuse of the card by an employee to the Central Administrative Support Center (CASC) Head Contracting Officer. Lastly, all office cardholders, including the MIC, although they have certified that they have been trained, should receive additional training on the duties and responsibilities of purchase card users and the approving official.

In response to our draft report, agency officials concurred with our recommendations to improve oversight and controls over the use of purchase cards and to provide additional training to purchase card users and the approving official. NWS officials stated that Administrative Management Division (AMD) officials from the Central Region Headquarters (CRH) would provide in-depth training in purchase card use to WFO Chanhassen purchase cardholders. In addition, the number of purchase cardholders has been reduced from 9 to 6, and purchasing authority of 5 of the 6 remaining cardholders has been reduced to $1 pending further review of previous purchasing activity and future requirements. The CRH AMD will also review purchase card statements on a recurring basis for all regional offices and the CRH Systems Operation Division will approve purchases made by the one remaining WFO cardholder.

WFO purchase cardholders failed to use required sources of supply

The *NWS Central Region Administrative Guide*[6] specifically states that cardholders are required to acquire supplies and services from required sources if they are capable of providing them. In our review of purchase card statements, we found examples of Chanhassen WFO cardholders buying office supplies from commercial sources such as Target, Office Max, and Office Depot retail stores. The MIC stated that he did not know government purchase cardholders were not normally permitted to shop at these stores for business purchases. We determined that the office could have adhered to the NWS guidelines because the supplies purchased at commercial sources could have been ordered through GSA or another required source of supply. We found no evidence that the required sources of supply were considered for these purchases.

In response to our draft report, agency officials did not agree with our finding that WFO purchase cardholders failed to use required sources of supply. NWS officials stated that it is the agency's position that if a supply requirement cannot be met through the Federal Prison Industries, Inc. (FPI or trade name UNICOR), Javits-Wagner-O'Day (JWOD) Program, or General Services Administration (GSA) Supply Catalog, the WFO is authorized to use the vendors on the GSA Federal Supply Schedules without obtaining a waiver from GSA. NWS

[6] Section C of the *National Weather Service Central Region Administrative Guide*, supplements both the Commerce Acquisition Manual, Part 1313.301, and the *Federal Acquisition Regulation,* Part 8.001, relating to the use of purchase cards.

officials also disagreed with our statement that cardholders are not permitted to shop at Office Depot without first requesting a waiver from GSA. They stated that the Office Depot contract is on an optional use Federal Supply Schedule.

We agree with NOAA officials that a waiver was not necessary for the WFO to make its purchases from the Office Depot retail store. However, it must follow the *Federal Acquisition Regulation* (FAR) when doing so. According to the FAR, Subpart 8.001, agencies are required, in priority order, to purchase supplies from (1) Federal Prison Industries, Inc. (FPI), (2) products available from the Committee for Purchase From People Who Are Blind or Severely Disabled (NIB/NISH), (3) wholesale supply sources, such as GSA, (4) mandatory Federal Supply Schedules, (5) optional use Federal Supply Schedules (such as the Office Depot schedule), and (6) commercial sources (such as Office Depot retail stores). Therefore, agencies may only use commercial sources after having determined that the needed items are not available from the prior sources. WFO officials stated that they did not go to the required sources before going to Office Depot to make their purchases.

Additionally, we found an example of a WFO cardholder buying furniture from Herman Miller, Inc., instead of Federal Prison Industries, Inc., without first obtaining a waiver. The employee stated that she believed that she had complied with regulations because Herman Miller, Inc., is on a GSA schedule. According to the FAR, Subpart 8.6, and the CAM Section 1313, subpart 3.4, agencies purchasing furniture must obtain a clearance (or a waiver) from FPI before furniture on the FPI schedule is acquired from other sources. We found no evidence that such clearance was either requested or obtained.

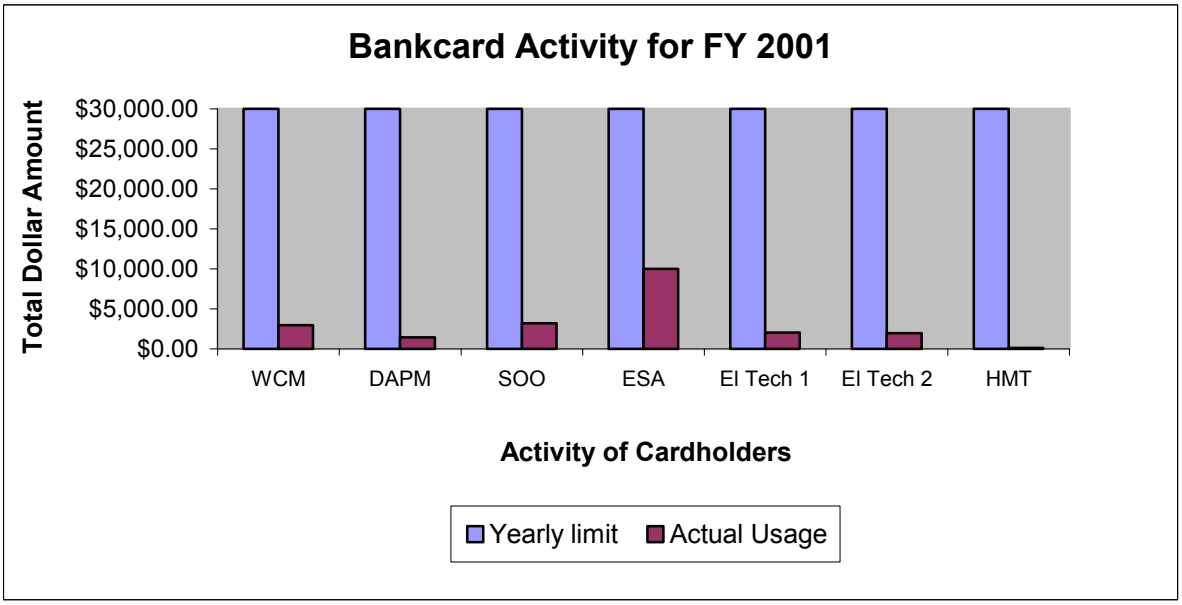
There are an excessive number of government purchase cardholders

The WFO's nine purchase cardholders include the MIC, the administrative support assistant (ASA), who is also the convenience check account holder, the warning coordination meteorologist, the data acquisition program manager, the science and operations officer, the electronic systems analyst (ESA), both office electronic technicians, and one hydrometeorological technician, each with a monthly purchase limit of $2,500. Based on an analysis of the actual total dollar amount of purchase card purchases per month for seven of the nine cardholders (excluding the MIC and ASA) for fiscal years 2000 and 2001, we believe there are an excessive number of purchase cardholders.

Since we did not receive any purchase card statements for the MIC, we were told by CASC to assume he had no activity on his purchase card for the above time period. We received all purchase card statements for the ASA. However, we did not include her in our analysis of how many purchase cards are required because of her office-wide procurement responsibility and the use of her card to pay the utility bills. We prepared a chart (shown below) to illustrate that most of the office's remaining purchase cardholders had a low dollar level of purchase card purchases. We compared the total dollar amount of actual purchases for all months in FY 2001, for each cardholder, to the cardholder's total monthly limit of $2,500 calculated for the entire year ($30,000). According to our analysis, the total dollar amount spent by all cardholders was significantly lower than the maximum available spending levels for the year. An example of

little or no demonstrated need is that the HMT had account activity for only four months in FY 2001 totaling only $138.[7]

Chart 1. Bankcard Activity for Chanhassen WFO Cardholders



In addition, we identified purchases of the same types of products that were being made by the ASA and other cardholders. For example, we found purchases by multiple cardholders, including the ASA, for compact disks and other general office supplies (for example, pens, pencils, folders) that easily could have been purchased by the ASA for the entire office. In another example, we found purchases made by the electronic technicians for computer equipment that should have been made by the ESA, who is the electronic technicians' supervisor, to ensure tighter controls over purchases and inventory. In our reviews of other WFOs, we found that the ESA was the only purchase cardholder for the electronics staff. The ESA generally made all operational equipment purchases and purchased items requested by the electronic technicians.

Based on our analysis, we believe that there are an excessive number of purchase cardholders in the office. In accordance with the *NWS Central Region Administrative Guide's* August 2000 Monthly Update, to ensure adequate control of purchases and to minimize the number of purchase card statements that the MIC must review, the office should reduce the number of cardholders by eliminating those with little or no activity for the past year and centralize the responsibility for ordering general office supplies and computer or electronic equipment with the ASA and the ESA.

[7] We examined the kinds and locations of purchases made by the HMT and found that he made local purchases that were primarily offices supplies that should have been obtained from required supply sources by the ASA.

In response to our draft report, agency officials concurred with our recommendation and, as noted previously, have reduced the number of cardholders from nine to six

B. The WFO inappropriately used convenience checks to pay for some WFO expenses as well as those of other NWS offices

During our review, we found that the Chanhassen WFO (1) did not properly follow convenience check regulations, and (2) inappropriately used convenience checks to pay vendors for training, publications, and a server license for the National Operational Hydrologic Remote Sensing Center (NOHRSC) staff, which are collocated with the WFO staff.

Convenience checks were not adequately controlled and used in accordance with regulations

Based on our review of a sample of the convenience checks written in fiscal years 2000 and 2001, we found that the WFO's administrative assistant had written several checks to vendors who accept government purchase cards or purchase orders. The MIC approved all of the checks that were written. Several checks were written to a local cable company for services rendered to the office. When we contacted the cable company, they said that they accept government purchase cards for payment and do not charge a fee for using a purchase card. The WFO, however, must pay a 1.25% cash advance fee to Citibank for each convenience check.

During our review of the Chanhassen WFO, we also found an example of improper personal use of a convenience check. This matter was first brought to our attention by the NWS Central Region, which visited the WFO just prior to our inspection. We also found that the MIC had not ensured that there were adequate internal controls over convenience checks. In addition, the convenience checks were not maintained in a locked box, as required by the regulations. The MIC also did not provide adequate oversight to ensure that the account holder adhered to procedures. The lack of adequate controls provides the opportunity for potential theft and waste of government resources.

The Commerce Acquisition Manual clearly states that convenience checks are to be used for official, authorized purposes only; that checks should be kept in a secure place; and that it is the responsibility of the approving official to ensure that the checks are used only for official purposes. It also requires that the account holder maintain a convenience check order log for all transactions, include detailed descriptions of the items purchased, and attach applicable justifications for all transactions.[8] Furthermore, NWS Central Region Headquarters (CRH) guidance states that, "upon receipt of VISA checks, the account holder must secure the checks in a locked box or a locked file cabinet."[9]

[8] Commerce Acquisition Manual, April 2001, Part 1313.301, "Department of Commerce Purchase Card Procedures."

[9] Imprest Fund Visa Checks Procedures issued by CASC in an e-mail from Central Region Headquarters AMD chief to all WFO MICs and ASAs, dated February 22, 1999.

In addition, the Central Region Guide provides that convenience checks cannot be used for the following: (1) travel advances; (2) to pay vendors that accept the government purchase card, purchase orders, blanket purchase agreements, Purchase Order-Invoice-Voucher Forms (SF 44s), or for items offered through the General Services Administration; (3) interim receipts prior to the purchase being made; (4) Cash-In-A-Flash (a Commerce Department employee incentive program); or (5) to reimburse employees, individuals or vendors.

We found that the ASA wrote 14 convenience checks for reimbursements to employees of the WFO, River Forecast Center (RFC), and Central Region Headquarters in fiscal years 2000 and 2001 (see Table 2). The ASA and the MIC stated that several of the checks were written to reimburse employees for purchases that did not have prior approval. This is contrary to departmental guidance. As shown in Table 2, one WFO employee was reimbursed for training he received at Hennepin Technical College. The MIC told us that the employee initially paid for the course himself, but the MIC later authorized the ASA to write a convenience check to reimburse him. It should be noted that the college accepts purchase cards as well as convenience checks for payment, and the employee is also a government purchase cardholder.

Table 2. Convenience Check Reimbursements to Chanhassen WFO, River Forecast Center, and NWS Central Region Headquarters Employees

Date	Payee	Cost	Receipt	Description
12/1/99	CRH Employee	$85.00	Yes	K-tech Mobile installed communication equipment in SFT vehicle
2/3/00	WFO Employee	20.03	Yes	Slides were made at Kinko's
6/5/00	WFO Employee	238.49	Yes	Training taken at Hennepin Technical College
3/7/00	WFO Employee	664.75	Yes	Bought WFO logo shirts as incentive awards
6/8/00	CRH Employee	10.00	Yes	Purchased airport security badge renewal and parking fee
10/24/00	WFO Employee	15.99	Yes	Office Max purchases
8/3/00	WFO Employee	22.00	Yes	Purchased 2 airport badges & short-term parking
10/3, 12/3, 12/14/00	RFC Employee	72.33	Yes	Target, Office Depot & National Camera purchases
3/20/01	WFO Employee	23.50	Yes	Amateur Radio Club conference registration
4/4/01	CRH Employee	13.00	Yes	Faxed 11 pages from a rural convenience store
3/30/01	WFO Employee	150.00	Yes	Payment for 2 staff to attend leadership conference
5/18/01	WFO Employee	47.24	No	None available
5/11/01	WFO Employee	80.00	Yes	Contractor installed radio equipment for amateur radio program
6/4/01	CRH Employee	11.00	Yes	Purchased airport badge and parking

In addition, many of the other purchases for which employees were being reimbursed could have been made with a purchase card or a convenience check, if purchase cards are not accepted. For example, an employee was reimbursed $664.75 for Chanhassen WFO logo shirts he purchased as incentive awards. In this case, the employee could have used his government purchase card to buy the shirts or asked the ASA to write a convenience check to the vendor for the shirts if the vendor would not accept the purchase card. When asked about this, the employee stated, “I just

did not use another form of payment." The employee also stated he was not aware that convenience checks cannot be used to reimburse staff members.

In summary, the MIC and ASA should be trained on the rules and regulations regarding the use of government convenience checks and should ensure their proper use and documentation. All WFO account holders and managers should also be knowledgeable about the policies and procedures governing the use of convenience checks and use them accordingly. In particular, they should only use convenience checks when (1) the vendor will not accept the Government Purchase Card, purchase orders, or SF 44s; (2) vendors require payment by cash or check; and/or (3) vendors do not have the capability to bill the agency. The WFO should not use convenience checks to reimburse employees under any circumstances. In addition, the MIC must also inform the CASC Head Contracting Officer if any misuse is found.

In response to our draft report, agency officials concurred with our recommendation to tighten controls over the use of convenience checks. NWS officials stated that Administrative Management Division officials from the Central Region Headquarters would provide in-depth training in convenience check use to appropriate WFO staff. They also noted that the ASA's convenience check account has been cancelled. All WFO requirements for convenience checks will be reviewed and checks will be issued directly by the Central Region AMD.

WFO inappropriately used convenience checks to pay expenses of NOHRSC employees

We found additional examples of inappropriate use of government convenience checks that occurred when the ASA wrote checks for the National Operational Hydrologic Remote Sensing Center (NOHRSC) staff because that office does not have convenience checks.

Table 3. WFO Convenience Check Payments for NOHRSC Expenses

Receipt Date	Vendor	Amount	Description
10/30/00	University of Minnesota	$879.41	Payment for employee training
12/4/00	University of Minnesota	829.54	Payment for employee training
12/21/00	University of Minnesota	859.54	Payment for employee training
7/24/01	[10]	199.00	Payment for employee for NcFTPd Server license
7/25/01	American Met. Society	105.00	Payment for bulletin and journal for employee

As previously mentioned, the NOHRSC is a NWS office located in the same facility as the WFO but it is not a part of the WFO. In fiscal year 2001, the ASA wrote five checks to pay for training and other items for NOHRSC employees, as shown above in Table 3. This practice violates proper internal controls because the WFO is not responsible for the NOHRSC, and each office has different transaction tracking and approval requirements. For example, while WFOs are required by CASC to submit a form SF-180 to request payment for training, the NOHRSC is

[10] Insufficient information to identify the vendor or the nature of the services rendered.

not required to submit such a form to CASC. Accordingly, the WFO should no longer use its convenience checks for other offices.

In response to our draft report, agency officials disagreed with our finding concerning the use of convenience checks to pay the expenses of NOHRSC. NWS officials stated that this practice does not violate proper internal controls as long as proper approval procedures and accounting codes and/or practices are being followed. Furthermore NWS officials said that "using a single check-writer for colocated [sic] offices is an efficient practice that is in conformance with the current DOC/NOAA/NWS focus on minimizing the number of check writers in the agency."

We agree with NOAA's position that using a single check writer for collocated offices may be an efficient practice. However, the check writer must obtain proper documentation from the other office to show that a transaction has prior approval and is appropriate. For example, an approved training request form and proper funds certification would satisfy this requirement for training payments. This was not done for the NOHRSC transactions cited in this report. As noted above, the Central Region is now issuing convenience checks for the Chanhassen WFO. In the event that the account is reinstated at Chanhassen, appropriate purchase and approval procedures should be used.

C. WFO lacks adequate controls for maintaining accountable property

The Chanhassen WFO does not have an adequate system of control and accountability for personal property. As part of our review of the WFO's administrative controls, we examined a sample of items on the office's inventory list and were unable to verify that all items selected were in the office. We found that the office's inventory list was incomplete, and some sensitive items were not secured.

WFO inventory controls need to be strengthened

We found that controls over property were inadequate, resulting in both missing equipment and accountable property not being included on the official inventory. Specifically, we found that the office's inventory records were not accurate. The WFO maintains two property lists—an unofficial office list and an official *NOAA Personal Property Physical Inventory Report,* which is tracked by the National Finance Center (NFC). The NFC list is the primary inventory system used by NOAA to track all of its accountable property. NOAA's policy permits line offices to maintain auxiliary lists, but not as a substitute for the official list of property. Unfortunately, Chanhassen's two lists are not consistent; some property appears on one list but does not appear on the other. For example, we found a TV/VCR combination unit, which is considered accountable property, on the office list but not on the NFC list.

Prior to our visit, we received an inventory report dated March 8, 2001, signed by the MIC, certifying, "that all personal property items are listed on the Personal Property Inventory Report, and that the items as indicated on the report were on hand." During our onsite inventory review,

however, the MIC stated that he had not actually reviewed the inventory and did not know what property was on the list. Although the MIC is the property custodian, he delegated personal property oversight to the ESA and ASA, and they had informed him that the property could be accounted for. He also did not know that the items included on the list were missing or where the missing items were, including 3 laptops listed on the office inventory. Eventually, the ESA was able to locate the missing laptops—one used by the fire weather meteorologist and two used by the electronic technician staff.

According to departmental regulations and NWS guidelines, the property custodian is responsible for maintaining inventory, which includes ensuring (1) effective administration and maintenance of a system of control and accountability for personal property; (2) that physical inventories are taken, records are reconciled, and discrepancies are investigated and resolved; and (3) that property is fully utilized and safeguarded from misuse or theft.[11]

During our random property check, we were able to identify sensitive items that were on hand but not listed on any property record, and items listed on a record but not on hand. Such items include laptops, scanners, walkie-talkies, external disk drives, an automatic folding machine, and a laser printer. In one example, we were told that the laptop identified on the inventory list was not found because it was old and had been disposed of. We did find a laptop that was not on the inventory list. We were told that it was acquired to replace the missing laptop; however, we found no documentation to support either transaction. We also did not receive explanations for the other aforementioned items. The office maintains property transaction records, but we were not able to find records for some of the property that had been purchased or declared as excess.

Furthermore, while trying to verify whether property items were properly maintained, we observed that some sensitive items were not secured. Specifically, we found a handheld film scanner on a desk in the back work area of the WFO that could easily have been stolen or misplaced. Chapter 4 of the Department's *Personal Property Management Manual* defines sensitive items as "non-expendable items that may be converted to private use or have a high potential for theft." It requires supervisors to be responsible for the security of personal property and to use a responsible method to ensure its accountability. The MIC should secure all sensitive property, such as laptops, digital cameras, handheld scanners, and other items that could easily be misplaced or stolen and ensure that they are adequately inventoried and controlled. According to departmental regulations, as the property custodian, the MIC is responsible for all of the office's accountable property. He should have knowledge of the governing regulations and ensure that the people selected to track and maintain property do so in accordance with those regulations. The MIC and appropriate staff should obtain refresher training on maintenance and oversight of accountable property.

[11] Department of Commerce, *Personal Property Management Manual*, section 1.204.

In response to our draft report, agency officials concurred with our recommendation. NWS officials stated that Administrative Management Division officials from the Central Region Headquarters would provide in-depth training on accountable property management to the MIC, ASA, and other appropriate members of the WFO staff, and will inspect all procedures in place during their on-site training inspection. The Regional staff will also conduct follow-up reviews on the handling of accountable property and other administrative functions at the Chanhassen WFO.

Office has excess computer equipment

The Chanhassen WFO stores excess computers, printers, external disk drives, and other unused IT equipment in the electronics technicians' workshop and the supply room. The office has been lax in disposing of such surplus equipment.

According to the Department's *Personal Property Management Manual*:

> "all property (whether accountable or not) that is no longer needed in an office should be turned in to the property custodian, together with Form CD-50, 'Personal Property Control' or CD-509, 'Property Transactions Request' for redistribution or disposal. Such forms shall be used to make changes to the records and accounts for accountable property, and should also be used to establish records of property stored for subsequent redistribution or disposal."

Currently, the office is maintaining equipment that could be used by others and that equipment is occupying space that could be used for other purposes. The office should declare as surplus, dispose of, or return to the regional office all excess equipment, according to the procedures set forth in the Department's manual and NWS policy.

In response to our draft report, agency officials concurred with our recommendation. NWS officials stated that the Chanhassen MIC has proceeded to review all accountable property to ensure the accuracy and completeness of the official property records. Furthermore, the MIC is developing procedures to secure sensitive items and provide a mechanism for staff to check out such items for official use. Finally, the MIC is proceeding with adding accountable property to the inventory and properly disposing of surplus property.

VII. Regional Oversight Should Be Improved

We reviewed the frequency of WFO station inspections and administrative reviews conducted by the Central Region Headquarters (CRH). Although the CRH staff claims to offer management support and oversight to its WFOs through annual regional management conferences, monthly teleconferences, e-mail updates, monthly administrative updates, and the Central Region Administrative Guide (via their regional intranet), they failed to conduct station inspections or on-site reviews of the Chanhassen WFO's management, program, technical and administrative operations.

Station inspections are internal NWS reviews that, among other things, evaluate WFOs' adherence to NWS policies and procedures in various areas, including systems and equipment, the upper air program, and surface observations. According to the Weather Service Operations Manual, Chapter B-66, regional personnel are required to conduct routine comprehensive visits of WFOs at least once every 12 months for observation programs and radar stations and at least once every 18 months for Upper Air stations.

The regional office staff told us that they have never conducted formal reviews of the WFO's program and technical operations. There were three internal reviews conducted of the WFO's Station Instructions, the Station Duty Manual, the Service Programs, and the Warning Coordination and the Hazard Awareness Programs in May 1998, November 1999, and June 2001 by the WFO Weather Service Evaluation Officer. However, these reviews were performed in-house and not by the Central Region which has oversight responsibility.

As noted above, we observed several conditions in the WFO's administrative operations that might have been corrected earlier if there had been adequate regional oversight. The Central Region's Administrative Management Division (AMD) chief stated that a lack of resources prevented the regional headquarters from conducting a full administrative review of the WFO. The AMD staff conducts mini reviews while in the office on training visits and full-scale reviews if the regional office is alerted to problems by other sources. Although the AMD chief conducted the last mini review of Chanhassen in November 1997, she stated that it was not a complete review of the administrative functions because she was trying to resolve other issues. We should note that the Central Region office conducted a partial administrative review just prior to our visit in August 2001.

Prior to our review, the AMD chief told us that she conducted a phone conference in March 2000 with all Central Region MICs, HICs, and ASAs to discuss the administrative deficiencies that the OIG had found in its review of the Raleigh WFO[12] to ensure that no Central Region office would have similar findings. She also told us that she conducted a more detailed discussion with the ASAs during the Central Region ASA meeting in April 2000. The chief also sent a checklist to

[12] *Raleigh Weather Forecast Office Provides Valuable Services but Needs Improved Management and Internal Controls*, IPE-12661, September 2000. The AMD chief acted upon the results of the OIG exit conference since the draft report had not yet been issued.

all Central Region WFOs in June 2001 to help them prepare for an anticipated OIG review.[13] We found that the Chanhassen WFO received the checklist, but did not act upon it.

Guidance and training provided to the Chanhassen WFO have not been adhered to. Clearly, there is a need for greater regional oversight. Given the number and the nature of the problems documented at Chanhassen WFO, we believe that CRH managers and staff should develop a schedule to periodically visit Chanhassen, as well as their other WFOs, to review management, program, technical, and administrative operations as part of comprehensive WFO reviews. They should maintain records of the reviews that highlight the problems identified and should offer recommendations to correct the deficiencies. The Region should also conduct follow-up reviews, as necessary. Since our visit, the Central Region told us that they have developed a schedule to conduct administrative reviews.

In response to our draft report, agency officials concurred with our recommendation about regional oversight. NWS officials stated that Central Region senior staff would conduct regular, periodic oversight visits of all WFOs in the region to review administrative, program, technical, and management operations. Furthermore, the Central Region's Administrative Management Division (AMD) has modified its procedures and will review purchase card summary statements and VISA check statements from all Central Region offices before they are submitted to CASC. Finally, the checklist developed by the AMD chief, which was mentioned in the report, is being refined and will require annual certification by each MIC and Hydrologist-in-Charge in the Central Region.

An additional response by NWS officials took exception to the comment that the Chanhassen WFO received the checklist "but did not act upon it." NWS officials stated that the checklist was reviewed by the MIC but not all corrective actions had been accomplished. During our conversation with the MIC at the time of our visit to Chanhassen, he stated that he wanted to wait until the completion of our review before making any changes.

[13] *Administrative Evaluations Criteria/Questionnaire* developed by the Administrative Management Division and sent as an attachment to e-mail to all Central Region offices.

RECOMMENDATIONS

We recommend that the Assistant Administrator for NWS instruct the Central Region Director to take the following actions:

1. Work with the Chanhassen forecasters and the Central Region staff to determine how best to improve the office's verification statistics by lengthening the flash-flood warning lead-time (see page 8).

2. Evaluate the costs and benefits of producing the Minnesota state forecast, and decide whether the WFO should continue to issue it in its current format, issue it in a revised format, or eliminate the product entirely (see page 9).

3. Take appropriate action to ensure that the Cooperative Observer Program will be adequately supported by trained staff, given the anticipated attrition of DAPMs and HMTs nationwide (see page 13).

4. Ensure that the MIC, the ASA and all other appropriate staff receive additional training on the use of purchase cards and convenience checks, and accountable property (see pages 17, 21, and 24).

5. Develop a schedule to periodically visit the Chanhassen WFO, as well as other Central Region WFOs, to conduct comprehensive reviews of their programs, management, technical, and administrative operations (see page 27).

We recommend that the Central Region Director instruct the MIC to take the following actions:

6. Implement completed IDPs for all employees. Ensure that employees are provided with information on and access to the appropriate training courses (see page 15).

7. Ensure that adequate internal controls are in place for purchase cards and convenience checks and that they are only used for authorized purchases in accordance with departmental and NOAA guidelines (see pages 17 and 21).

8. Determine whether the number of office purchase cardholders can be reduced (see page 19).

9. Maintain an accurate, complete, and up-to-date official inventory list and secure sensitive property (see page 24).

APPENDIX I

Acronyms for the National Weather Service

AMD	Administrative Management Division (Central Region)
ASA	Administrative Support Assistant
AWIPS	Advanced Weather Interactive Processing System
CAM	Commerce Acquisition Manual
CASC	Central Administrative Support Center
CRH	Central Region Headquarters
CWA	County Warning Area
DAPM	Data Acquisition Program Manager
ESA	Electronic Systems Analyst
FAR	False Alarm Rate
FPI	Federal Prison Industries, Inc.
HMT	Hydrometeorological Technician
IDP	Individual Development Plan
IFPS	Interactive Forecast Preparation System
ITO	Information Technology Officer
MIC	Meteorologist-In-Charge
NOHRSC	National Operational Hydrologic Remote Sensing Center
POD	Probability of Detection
RFC	River Forecast Center
SOO	Science and Operations Officer
WCM	Warning Coordination Meteorologist
WFO	Weather Forecast Office

AGENCY RESPONSE

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
CHIEF FINANCIAL OFFICER/CHIEF ADMINISTRATIVE OFFICER

MAR 18 2002

MEMORANDUM FOR: Jill Gross
Assistant Inspector General
for Inspections and Program Evaluations

FROM: Sonya G. Stewart

SUBJECT: Response to the Office of Inspector General (OIG) Draft Inspection Report: Chanhassen Weather Forecast Office Generally Provides Effective Forecast, But Office Management and Regional Oversight Needs Improvement, Report No. IPE-14423

The National Oceanic and Atmospheric Administration appreciates the opportunity to respond to your draft inspection report. We have taken corrective action for three of the nine recommendations and have developed an implementation schedule for the six remaining recommendations.

Attachment

Printed on Recycled Paper

NOAA Response to the Office of Inspector General Draft Inspection Report: Chanhassen Weather Forecast Office Generally Provides Effective Forecasts, But Office Management And Regional Oversight Need Improvement, Report No. IPE-14423

Recommended Changes for Factual Information

Page i, paragraph 2: Rephrase to say "*In the spring of 1995, the Chanhassen office increased its responsibilities due to the expected closure of two nearby Weather Service Offices. The expansion carried with it additional duties, including issuing warnings for 51 counties instead of 23, and the Radiosonde Upper Air Observing (Upper Air) Program. The Upper Air Program uses balloon-launched . . .*"

Page 2, paragraph 2: In March 1995, the Weather Service Forecast Office was relocated from the Minneapolis Airport to Chanhassen. The County Warning Area increased due to the transfer of counties from the Weather Service Offices at Rochester and St. Cloud.

Page 3, paragraph 1: The FY2001 training, travel, purchases, and equipment budget was *$31,725 (vice $21,545)*.

Page 7, Table 1: Replace category "*Hydrology Program*" to "*Flash-Flood Program*". There is much more involved in the Hydrology Program than flash floods.

Page 8, paragraph 2: Replace "Statistics for the hydrology program's . . ." with "*Statistics for the flash-flood program's . . .*"

Page 9, paragraph 2, line 3: Change "*four*" to "*five*" and add Aberdeen, South Dakota.

Page 23, paragraph 3, line 5: Change "*WFO Union Shop Steward*" to "*WFO Weather Service Evaluation Officer (WSEO)*" in the sentence reading, "*There were three internal reviews conducted of the WFO's Station Instructions, the Station Duty Manual, the Service Programs, and the Warning Coordination and the Hazard Awareness Programs in May 1998, November 1999, and June 2001 by the WFO's Union Shop Steward.*"

Page 23, last paragraph: ". . . *in the summer of 2001, the AMD chief conducted a phone conference with all Central Region ASAs to discuss the administrative deficiencies found . . .*" should be replaced with ". . . *in March 2000, the AMD chief discussed via phone conference with all Central Region MICs/HICs and ASAs the administrative*

deficiencies found . . ." And this sentence should be added: *"This was followed by a more detailed discussion of the Raleigh IG report/findings during the Central Region ASA meeting in April 2000."*

General Comments

Page 16 - "WFO purchase cardholders failed to use required sources of supply." It is the NWS's position if a supply requirement cannot be met through the Federal Prison Industry (FPI or trade name UNICOR), Javit's-Wagner-O'Day (JWOD) Program, or General Services Administration (GSA) Supply Catalog, the WFO is authorized to use the vendors on the GSA Federal Supply Schedules without obtaining a waiver from GSA.

The basis for our position is as follows:

Footnote 7, page 16, of the report states ". . . cardholders are not permitted to shop at Office Depot without first requesting a waiver from GSA." The Office Depot contract is on Federal Supply Schedule 75 IIA which is an optional use schedule. FAR 8.001, *Priorities for use of Government supply sources*, lists the order of priorities as UNICOR, JWOD, wholesale supply sources (which includes the GSA supply catalog), mandatory Federal Supply Schedules, optional use Federal Supply Schedules, and lastly commercial sources. Over the last few years, GSA began converting almost all of their schedules from mandatory to optional use. The few remaining mandatory schedules include next day air delivery and travel service. Any Federal Supply schedule that an office would use to purchase office supplies would be an optional use schedule.

Footnote 8, page 16, refers to FAR 8.4. The only reference to waivers in the current FAR 8.4 is in FAR 8.404-3, *Requests for Waivers*, which states: "When an ordering office that is a **mandatory** (emphasis added) user under a schedule determines that items available from the schedule will not meet its specific needs, but similar items from another source will, it shall submit a request for waiver to the . . ." We cannot locate in FAR 8.4 any requirement for waivers other than from **mandatory** use contracts. Therefore, when an office cannot locate their required supplies from UNICOR, JWOD, or GSA stock, their next priority source is mandatory Federal Supply Schedules followed by optional use Federal Supply Schedules. Further, in FPMR 101-26, *Procurement Sources and Program*, Subpart 101-26.3--*Procurement of GSA Stock Items*, guidelines are provided for agencies that determine alternative sources of supply are more favorable. Only when the total line item requirements exceed $5,000 are agencies required to submit a waiver to GSA.

NWS's position was confirmed by the Department of Commerce's Bankcard Center.

2

Page 20 - WFO inappropriately used convenience checks to pay expenses of NOHRSC employee. We question the general finding concerning the use of convenience checks to pay expenses of NOHRSC. We do not agree this practice violates proper internal controls as long as proper approval procedures and accounting codes/practices are being followed. In contrast, using a single check-writer for colocated offices is an efficient practice that is in conformance with the current DOC/NOAA/NWS focus on minimizing the number of check writers in the agency.

We concur with the more specific finding that use of convenience checks to reimburse NOHRSC employees for personal expenses is in violation of the regulations.

Page 23, last paragraph, last sentence: Exception taken with the comment ". . . *but did not act upon it.*" The checklist was reviewed by the MIC but not all corrective actions had been accomplished.

Page 25, midway down the page: Recommend the statement "We recommend that the Assistant Administrator for the NWS instruct the MIC to take the following actions" be changed to state, "We recommend that the Central Region Director instruct the MIC to take the following actions."

Page 25, recommendation 5: This recommendation applies to all Central Region offices, not only Chanhassen, and therefore, should be included with Recommendations 1-4.

NOAA Response to OIG Recommendations

The OIG states, "We recommend that the Assistant Administrator for NWS instruct the Regional Director to take the following actions:"

Recommendation 1: Work with the Chanhassen forecasters and the Central Region staff to determine how best to improve the office's verification statistics by lengthening the flash-flood warning lead time.

NOAA Response: We concur. The analysis of the statistics indicates the primary reason the flash-flood lead time averages only 8 minutes in FY01 is due to a reporting method assigning zero-minute lead time to flash-flood warnings issued for heavy rain events when spring snow melt flooding was already occurring (29 events). The lead time for typical flash-flood events was 28 minutes (7 events) which was below the regional average of 45 minutes.

The recent change to Weather Service Operations Manual Chapter E-22 allows forecasters to issue a new warning product addressing the situation of heavy rain falling on top of existing river flooding. A

flash-flood warning would still be issued in this situation if immediate action by the public is required. This should significantly reduce the use of flash-flood warnings during river flooding events. In order to improve lead time for typical flash-flood events, each member of forecast staff and the Service Hydrologist will utilize the Weather Event Simulator (WES) to increase proficiency in flash flood situations. Additionally, CRH has collected a listing of best practices used by offices that have been very successful in the issuance of flash-flood warnings. The MIC and staff will incorporate the best practices into the Chanhassen WFO operation.

Target Date for Completion: By April 30, 2002, the WES case study will be completed by all staff members. Also by April 30, 2002, the MIC will report to the CR Regional Director best practices have been adopted by WFO Chanhassen and what other changes in operations have been made to improve flash flood warning lead time.

Recommendation 2: Evaluate the costs and benefits of producing the Minnesota state forecast, and decide whether the WFO should continue to issue it in its current format, issue it in a revised format, or eliminate the product entirely.

NOAA Response: We concur. NWS evaluated the costs and benefits of producing this product and concluded: the cost of providing the state forecast product is minimal and forecasters use little time to consolidate the information in a statewide format from other forecast products; and there remains a customer base for this product (Minnesota Public Radio, Associated Press, etc.). The WFO should continue to produce the product in its current form.

Target Date for Completion: Completed February 2002.

Recommendation 3: Ensure the MIC, the ASA and all other appropriate staff receive additional training on the use of purchase cards, convenience checks, and accountable property.

NOAA Response: We concur. The Administrative Management Division (AMD) Chief and 2 other AMD staff members will provide in-depth training in purchase card, convenience checks, and property areas for the MIC, ASA, and other appropriate members of the staff. The members of this team will also administer a comprehensive follow-up review on the use of purchase cards, convenience checks, accountable property, and other administrative areas at the Chanhassen WFO.

Target Date of Completion: The training and review will occur March 18-22, 2002.

4

Recommendation 4: Develop a schedule to periodically visit the Chanhassen WFO, as well as other Central Region WFOs, to conduct comprehensive reviews of their programs, management, technical, and administrative operations.

NOAA Response: We concur. Reviews that address administrative, program, technical, and management operations will be administered by CRH Senior Staff during WFO, RFC, or CWSU visits. Comprehensive reviews for administrative, program, technical, and management operations will be administered at offices of concern.

Additionally, CR AMD has modified regional procedures and will review purchase card summary statements and VISA check statements from all CR offices before submittal to the Central Administrative Support Center (CASC). Also, as mentioned in the report, AMD has developed an in-depth checklist which was sent to all offices in June 2001. This checklist is being refined and will require annual certification by each MIC/HIC in Central Region.

Target Date of Completion: A visitation/review schedule for all offices in the Region and the CRH Senior Staff inspection checklist will be completed by July 31, 2002.

An updated version of the administrative operations comprehensive review guide will be completed by March 15, 2002, and will be used during reviews at 4 additional WFOs this fiscal year. The comprehensive review guides for program, technical, and management operations will be completed by September 30, 2002. Beginning in FY03, CRH Senior Staff will accomplish reviews for at least 10 Central Region offices each fiscal year. A comprehensive review for all areas of the operations will be administered at one WFO each quarter. Regional administrative oversight procedures for bankcard statements and VISA check statements will be implemented by March 30, 2002.

The OIG states, "We recommend that the Assistant Administrator for NWS instruct the MIC to take the following actions:"

Recommendation 5: Take appropriate action to ensure that the Cooperative Observer Program will be adequately supported by trained staff, given the anticipated attrition of DAPMS and HMTs nationwide.

NOAA Response: We concur. NWS has determined the program will be adequately supported if: the WFO maintains a minimum of 4 employees in the data acquisition unit, comprised of 3 people in the 1341 job series (HMT or DAPM) and 1 Meteorologist Intern; and should turn-over occur, new staff members receive Cooperative Program training at NWSTC.

Target Date of Completion: Completed February 2002.

5

Recommendation 6: Implement completed IDPs for all employees. Ensure that employees are provided with information on and access to the appropriate training courses.

NOAA Response: We concur. Individual Development Plan (IDP) training and templates were provided for all employees during the first quarter of FY02. All employees were to prepare their own IDPs and discuss them with their supervisor at the upcoming midterm performance review. A list of available training courses will be provided to all employees.

Target Date of Completion: March 31, 2002 - list of training courses provided to all employees; April 30, 2002 - IDPs for all employees completed.

Recommendation 7: Ensure that adequate internal controls are in place for purchase cards and convenience checks and that they are only used for authorized purchases in accordance with departmental and NOAA guidelines.

NOAA Response: We concur. The ASA's convenience check account has been cancelled. All WFO requirements for convenience checks will be reviewed and checks issued directly by CRH AMD. The number of office purchase card holders has been reduced from 9 to 6. Of the remaining 6 cardholders, the purchase authority of 5 cardholders has been reduced to $1 pending a further review of previous purchasing activity and future requirements. The one remaining cardholder (ESA) must obtain approval from the chief of CRH SOD prior to making purchases. Following completion of all reviews, CRH will determine the final number of office purchase cardholders and ensure adequate internal controls are in place. CRH AMD will review purchase card summary statements on a recurring basis for all offices in Central Region.

Target Date of Completion: Determination on the final number of WFO Chanhassen purchase card holders and regional approval of local internal controls will be completed by August 30, 2002. A monthly review of purchase card summary and VISA check statements for all CR offices will be initiated by CRH AMD by March 30, 2002.

Recommendation 8: Determine whether the number of office purchase cardholders can be reduced.

NOAA Response: We concur. As described in the response to Recommendation 7 above, the original number of 9 cardholders has been reduced to 6.

Target Date of Completion: Completed February 5, 2002.

6

Recommendation 9: Maintain an accurate, complete, and up-to-date official inventory list and secure sensitive property.

NOAA Response: We concur. The Chanhassen MIC is proceeding with a review of all accountable property to ensure records are accurate and complete. The unofficial office property list has been eliminated. Only the NOAA Personal Property Physical Inventory Report will be used to track accountable property. The MIC is developing procedures to secure all sensitive property in locked cabinets. Checkout logs of sensitive property, such as laptop computers, digital cameras, etc. will be implemented. The MIC will utilize the directions in the Personal Property Management Manual and conform to NWS policy in adding accountable property to inventory and properly disposing of surplus property. CRH AMD will conduct in-depth training on accountable property procedures and will inspect all procedures in place during their on-site training/inspection.

Date of Completion: On-site training on accountable property and inspection of office procedures will be conducted by CR AMD during the period of March 18-22, 2002. The accountable property records, tracking logs, and proper security procedures will be finalized by March 30, 2002. Documentation will be completed and submitted to GSA for the disposal of surplus property by April 30, 2002.

7