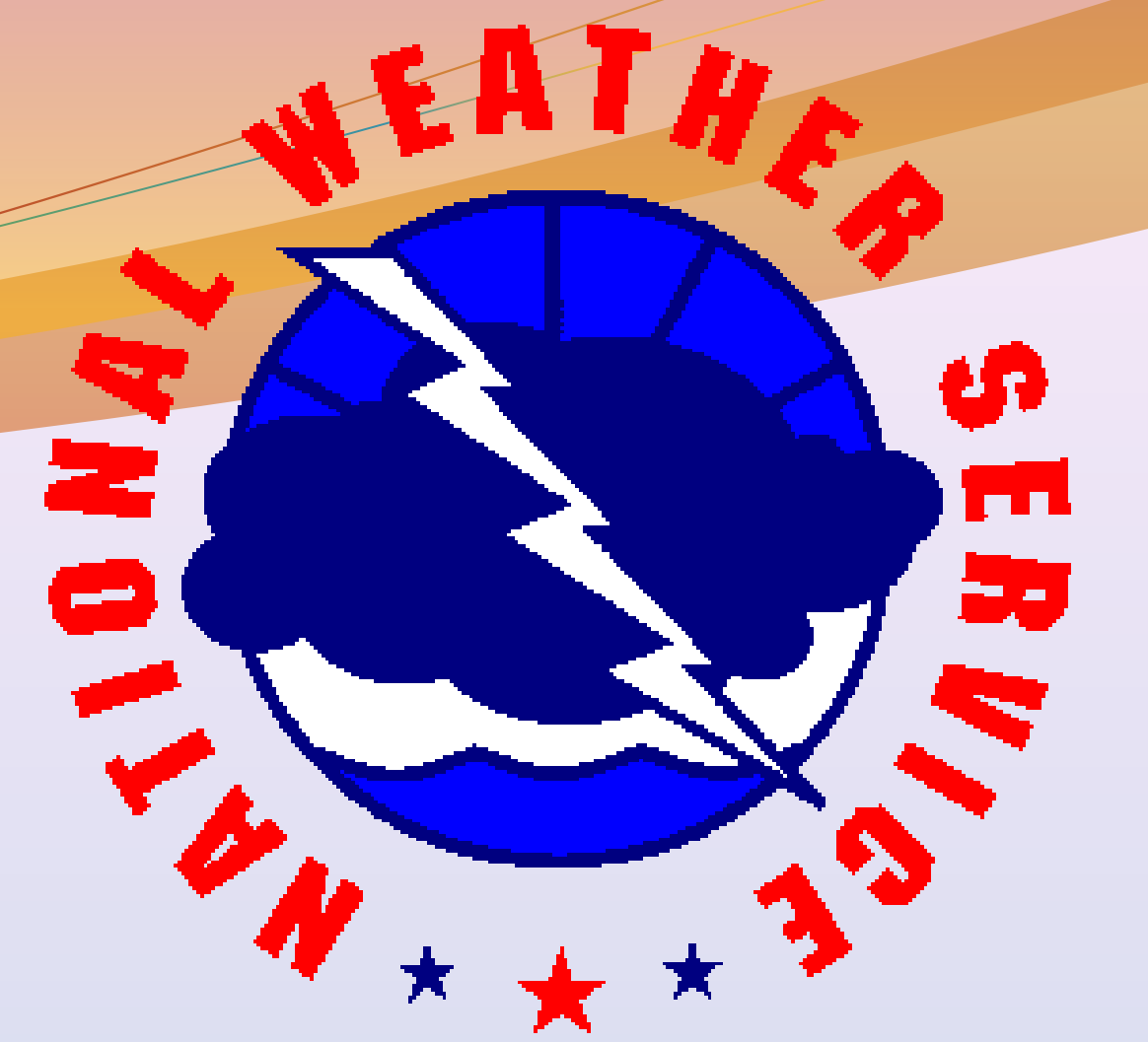


A Rare Ice Storm in the Intermountain Western U.S.: Societal Impacts



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09 January 2017 Ice Storm

- On Monday, 09 January 2017, an extremely rare ice storm impacted Western Colorado and Eastern Utah, including:
 - La Plata, Garfield, Routt, and Mesa counties in Western Colorado
 - Grand County in Eastern Utah
- Occurred on the first school day after the winter break with freezing rain falling just before classes started
- The ice storm that impacted the area had not been seen by long-time residents in over 50 years



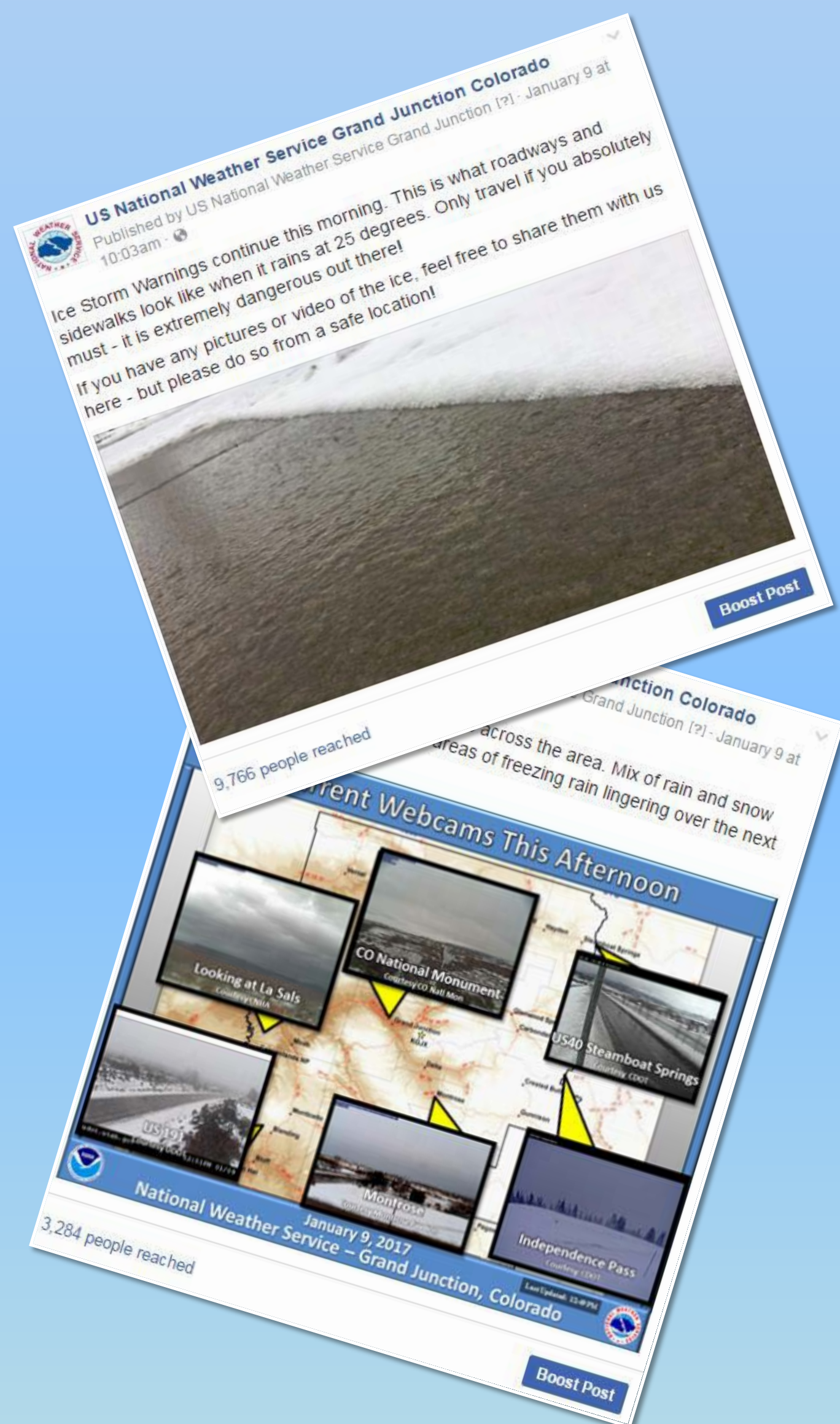
Image 1: Fire truck after sliding off of Interstate 70 due to icy conditions



Image 2: Freight truck on median of Interstate 70 near Grand Junction, CO

Societal Impacts

- Numerous roads and highways were shut down due to icy conditions and accidents
 - Local schools across Mesa County were forced to delay and eventually cancel classes
 - Hundreds of accidents occurred across the area
- Medical centers were overwhelmed by the sudden increase of requests for services
 - Over 200 people were admitted to emergency rooms for injuries such as broken hips, arms, and fingers
- Extended power outages experienced in several cities
- Grand Junction Regional Airport was shut down for 3 hours



Credit: Mike Charneck

0400-0700 MST

- 0453: Freezing Rain (UP) reported at the Durango La Plata County Airport ASOS
- Between 0650-0800: Icy conditions delayed arrival of numerous NWS employees
- 0653: Freezing rain reported at the Grand Junction Regional Airport
- 0657: Messaging through social media

0800-0900 MST

- 0800: Freezing Rain Advisory issued for Animas River Basin
- 0810: Radar loop and Freezing Rain Advisories posted to social media
- 0845: Upgraded to Ice Storm Warnings with significant travel impacts

1000-1200 MST

- 1000-1030: Call with Gunnison County officials
- 1003-1107: Several social media posts issued including photographs of icy conditions in Grand Junction
- 1020: Mesa County officials briefed on freezing rain and temperature trends
- 1147-1151: Ice Storm Warning cancelled for the Durango area. Warnings for the Grand Junction region were extended through mid-afternoon

1400-1600 MST

- 1423: Updated information sent to CR-ROC
- 1436: Ice Storm Warning cancelled for the Grand Junction area
- 1519: Social media post sent that mentioned the potential that roads could re-freeze overnight
- 1543: Media interviews provided to TV news media

Jan. 7th

- Winter Storm Watches issued for snow in the northern and central mountains in western Colorado
- Forecaster mentioned "a small threat of freezing rain by Monday" in the Area Forecast Discussion (AFD)
- Winter Storm Watches were upgraded to Warnings with the afternoon forecast package

Jan. 8th

- Midnight shift forecaster mentioned that valley inversions were expected to break on Monday
- Social media post mentioning "a few patches of freezing rain possible?" for Monday morning
- Day shift forecaster stressed the warm nose aloft would play a key role in the short-term forecast

Jan. 9th

- 0710: Freezing Rain Advisories issued from Utah state line east to Rifle, including Grand Junction and Delta
- 0730: Grand Junction Police Chief activated the Emergency Operations Center (EOC)
- 0737: Freezing rain was occurring in Durango and traffic was at a standstill
- 0753: Interstate 70 closed in Grand Junction

Mar. 17th

- 1200: Grand Junction Regional Airport re-opened
- 1230-1330: Additional briefings and interviews provided to state and local officials/media
- 1313: Social media post mentioning freezing rain continuing for a few more hours
- 1320: Report of power outages in Routt County, CO as a result of freezing rain
- 1347: Outlook for next day provided to Mesa County School District 51

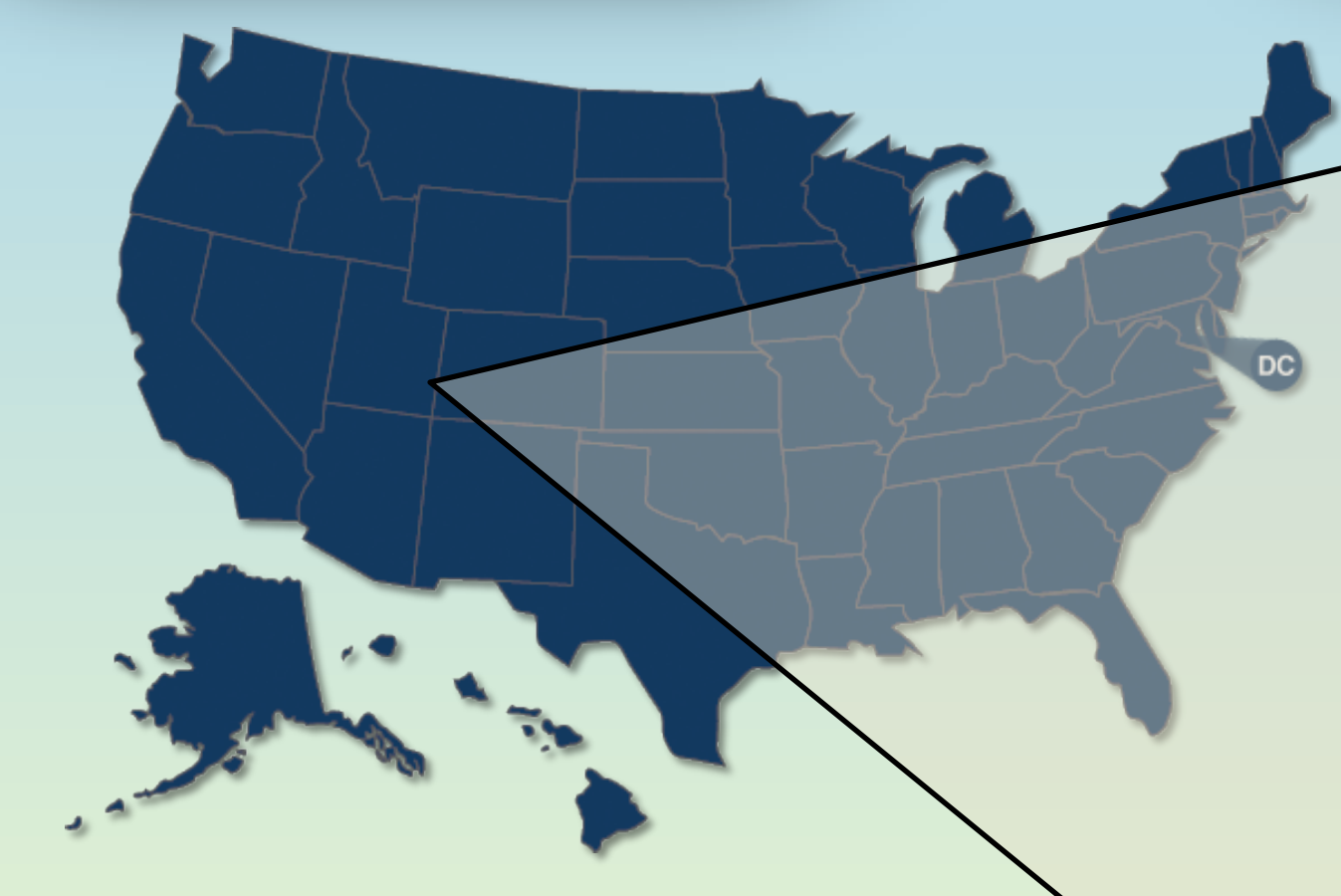
Ice Storm Assessment
WFO Grand Junction, CO
January 9, 2017

- Ice Storm Assessment completed by NWS GJT
- After-action review helped shape local office policies



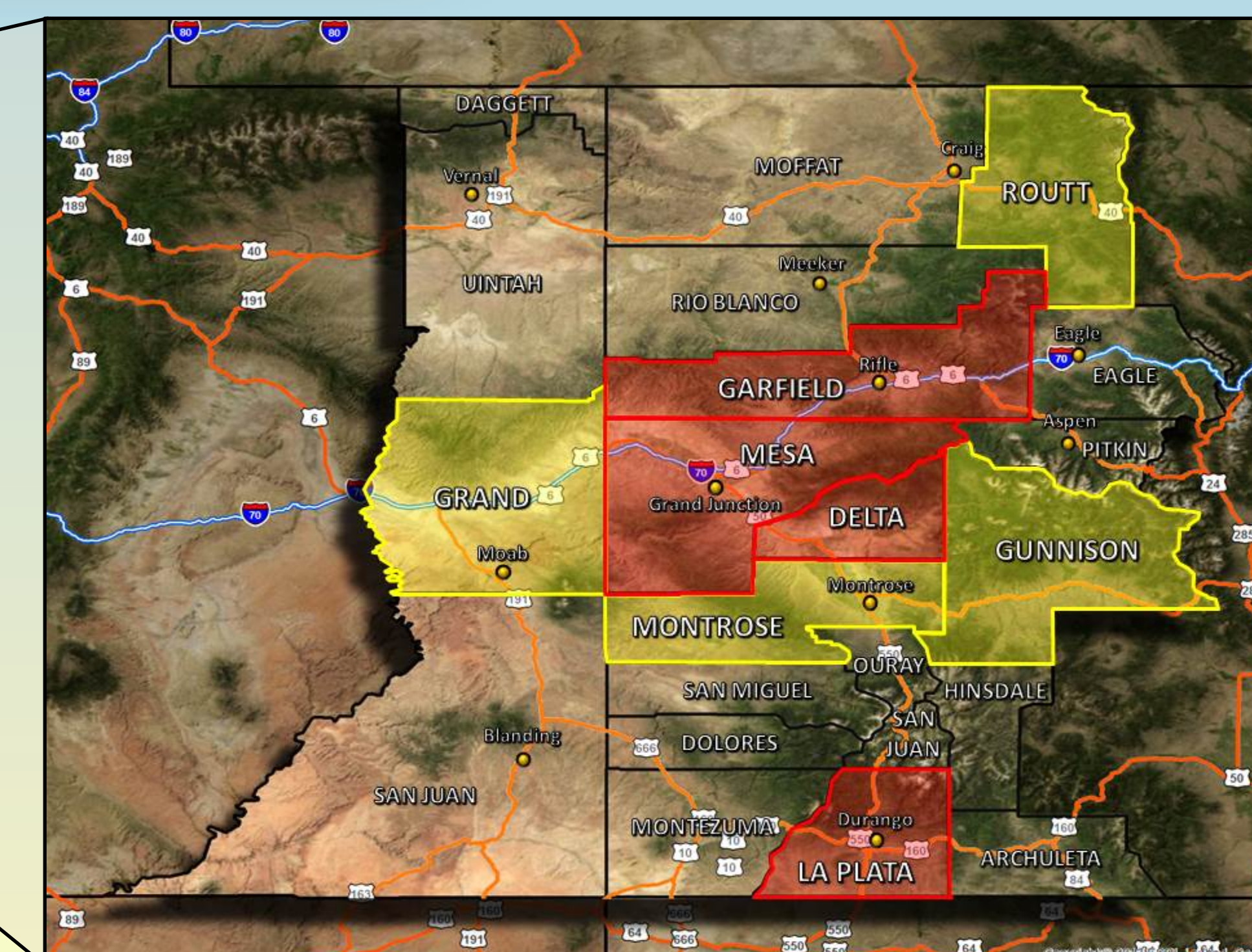
Decision Support Services (DSS)

- Abundance of media interviews conducted during and after the ice storm with local and regional TV stations, newspapers, and radio broadcasters
- Numerous phone briefings provided to Emergency Managers (EMs), state and local Emergency Operations Centers (EOCs), school districts, airport operators, and Departments of Transportation (DOTs)
- Dozens of posts to social media which provided updated weather information and highlighted the severity of the ice storm



WFO Grand Junction, CO County Warning Area

- Major Impact
- Minor Impact



Findings and Recommendations



- Rarity of freezing rain events can lead to lack of awareness
- Recommended adjusting local office policy to use "Ice Storm Warning" designation for all freezing rain events
- Integrate more flexibility and/or contingency staffing; shift routine responsibilities amongst forecasters
- Improve situational awareness by monitoring local media
- Stress confidence level to Core Partners during briefings