



Unique Support Aspects of the 2007 Castle Rock Wildfire

*Brian Waranauskas
NWS Forecast Office
Pocatello, Idaho
March 2008*



OVERVIEW



- Event background
- WFO Pocatello support
 - During fire
 - Post fire (BAER Team, flash flood event, winter season)
- Applications to NSWW discussions
- Q & A

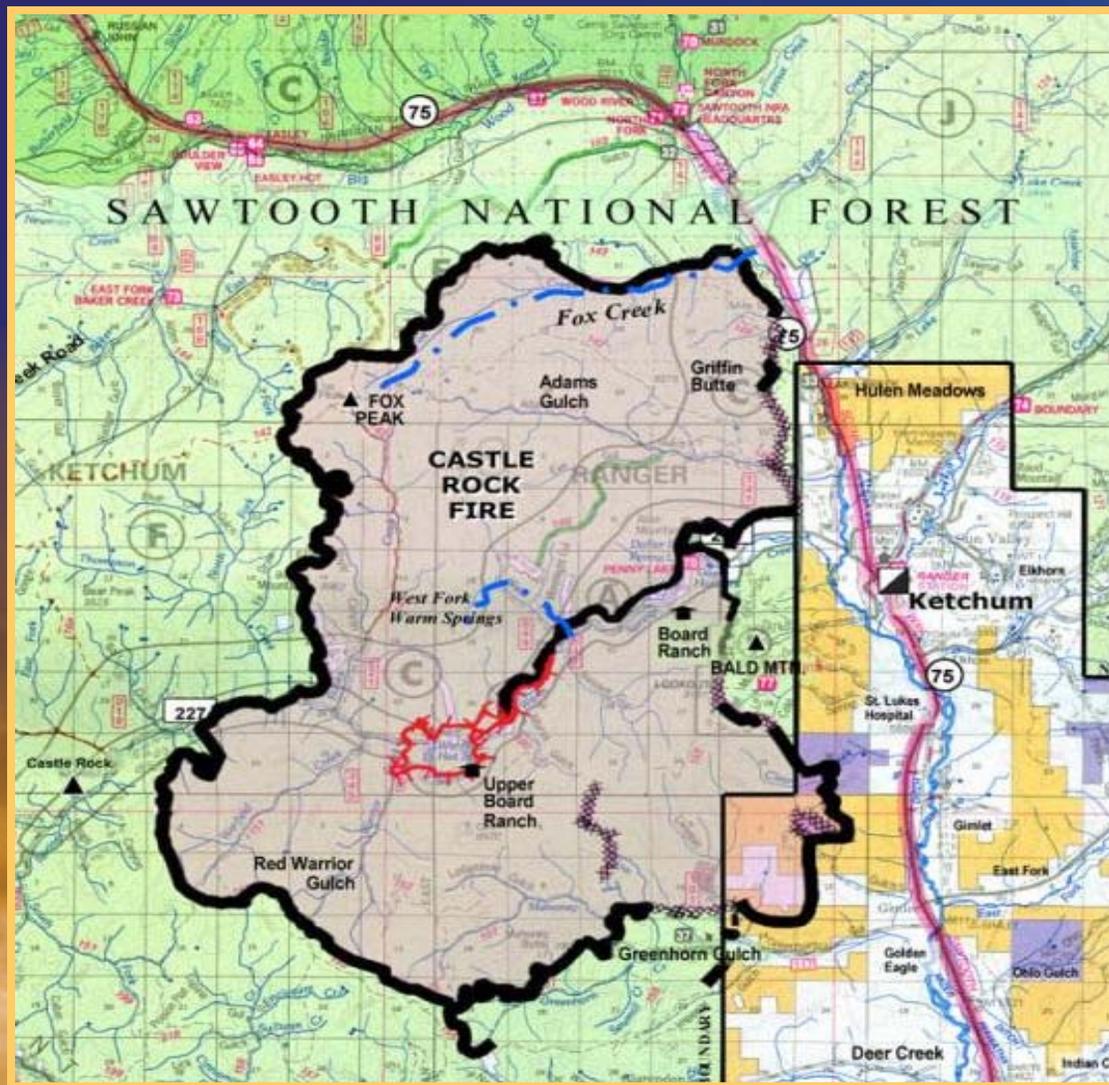


EVENT BACKGROUND





EVENT BACKGROUND



- Started by lightning on 16 Aug 07
 - 30-40 mph winds
 - 15-20% RH
- Total size: 48K acres
- Large number of high value assets threatened
- Type 1 ICT took over on 20 Aug
- Successful burnouts kept main fire away from urban areas
- Contained on 3 Sep



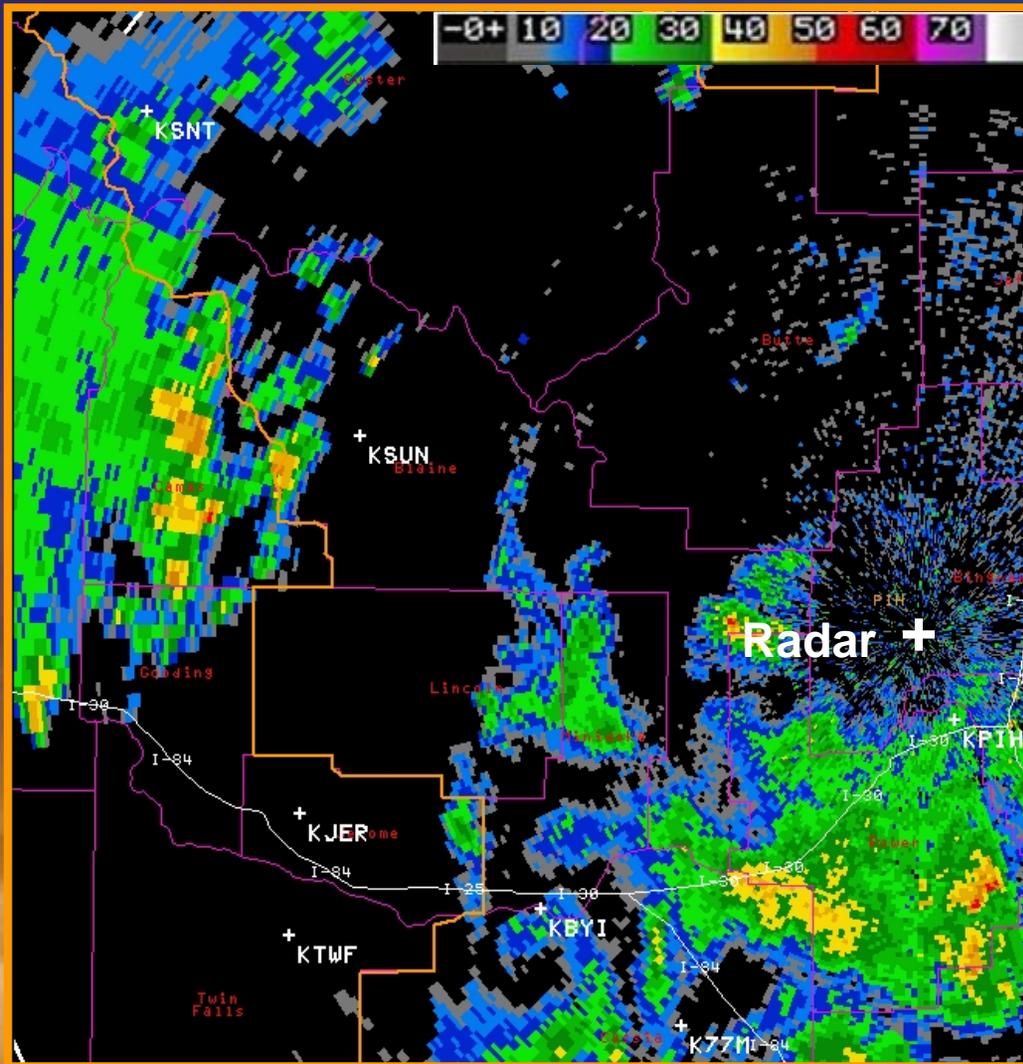
FIRE EVENT SUPPORT



- Started with call from county emergency mgmnt (EM) staff; first SPOT forecast request on 17 Aug
- Additional SPOTs completed on 18-19 Aug; first IMET arrived on site 20 Aug
- WFO conducted daily fire wx briefing via Web with IMETs, Blaine County EM staff and USFS dispatch offices
 - **Very successful support tool; in use since 2006**
- Visit to ICP by WFO boss & senior forecaster
 - Reinforced strong working relationship with EM staff
 - Fire support orientation for new forecaster



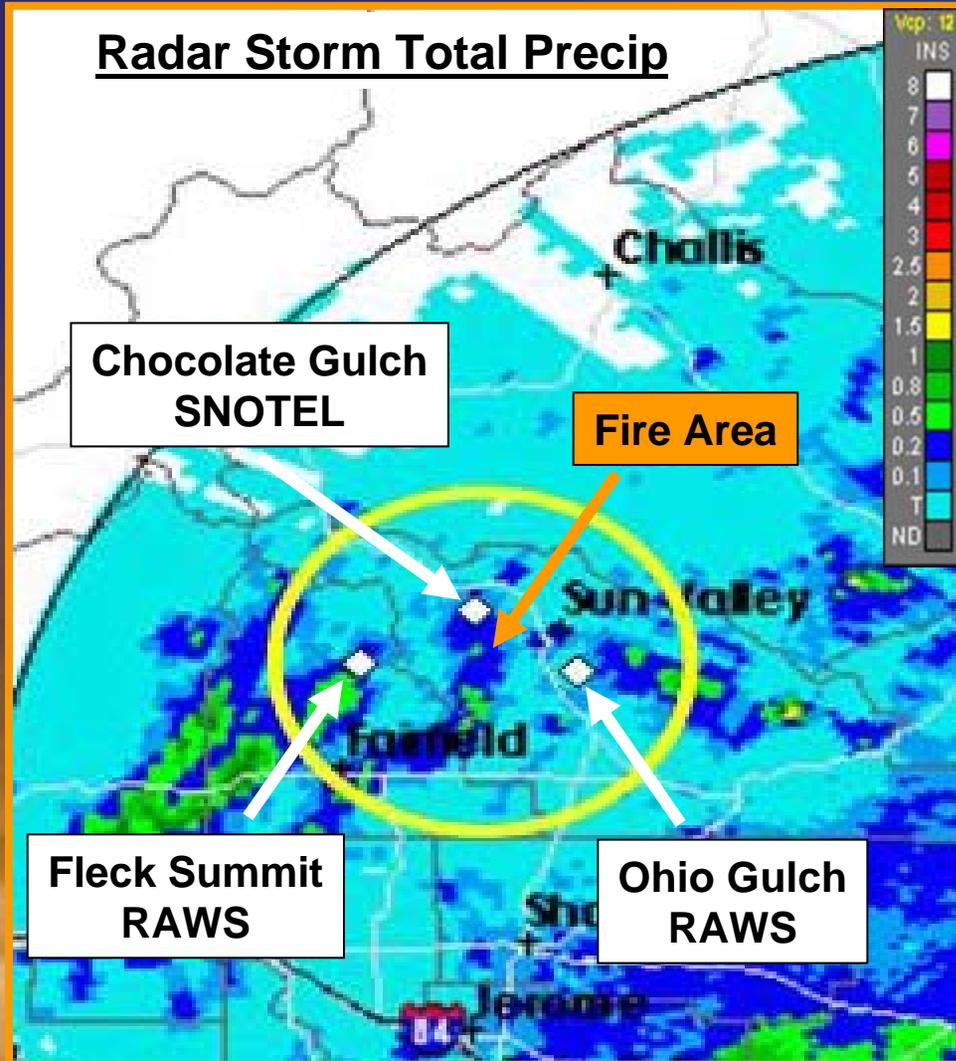
POST-FIRE FLASH FLOOD



- 4-5 Sep: U/L trof & weak cold front with SHRA/TSRA
- Flash flood watch issued; upgraded to warning as precip persisted over burn areas
- Convection south of radar also produced flash flooding and rare EF-0 tornado



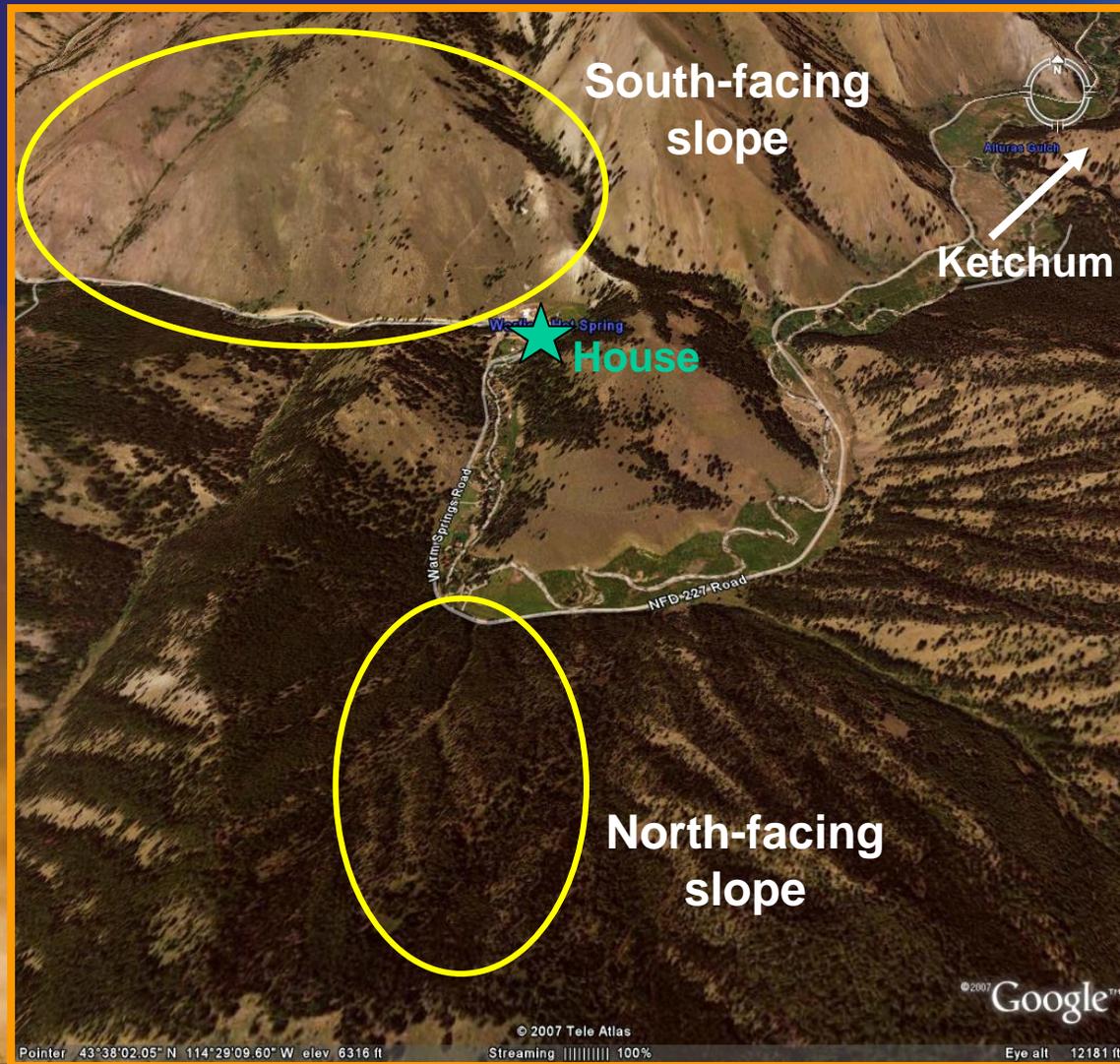
FLASH FLOOD EVENT



- Radar estimate of 0.2 to 0.5 inch of rain in ~2 hrs
- Nearby RAWS & SNOTEL sites:
 - Fleck Summit: 0.39" in 4 hrs
 - Ohio Gulch: 0.12" in 1 hr
 - Choc. Gulch: 0.2" in 2 hrs



SLIDE / DEBRIS FLOW AREAS



- Multiple slides on both slopes; mud covered over 1 mile of road
- Rehab hand crew (20 members, 3 vehicles) stuck behind slide for several hours
- Warm Springs Creek shifted southward; impact to aquatic life



SOUTH-FACING SLOPE



Plowed mud on roadsides

Andy Haner, WFO Seattle



DEBRIS FLOW AT HOUSE



Andy Haner, WFO Seattle

Levee of earthen material 1-2 ft high



BAER TEAM SUPPORT



Sherrie Hebert, WFO Pocatello

- Burn Area Emergency Response Team
- Multi-agency effort; determines & implements soil stabilization treatments
- Reduced risk to life, property and resources from post-fire effects
- PIH WFO hydrologist part of Castle Rock BAER Team
- New and expanding role for NWS hydrologists



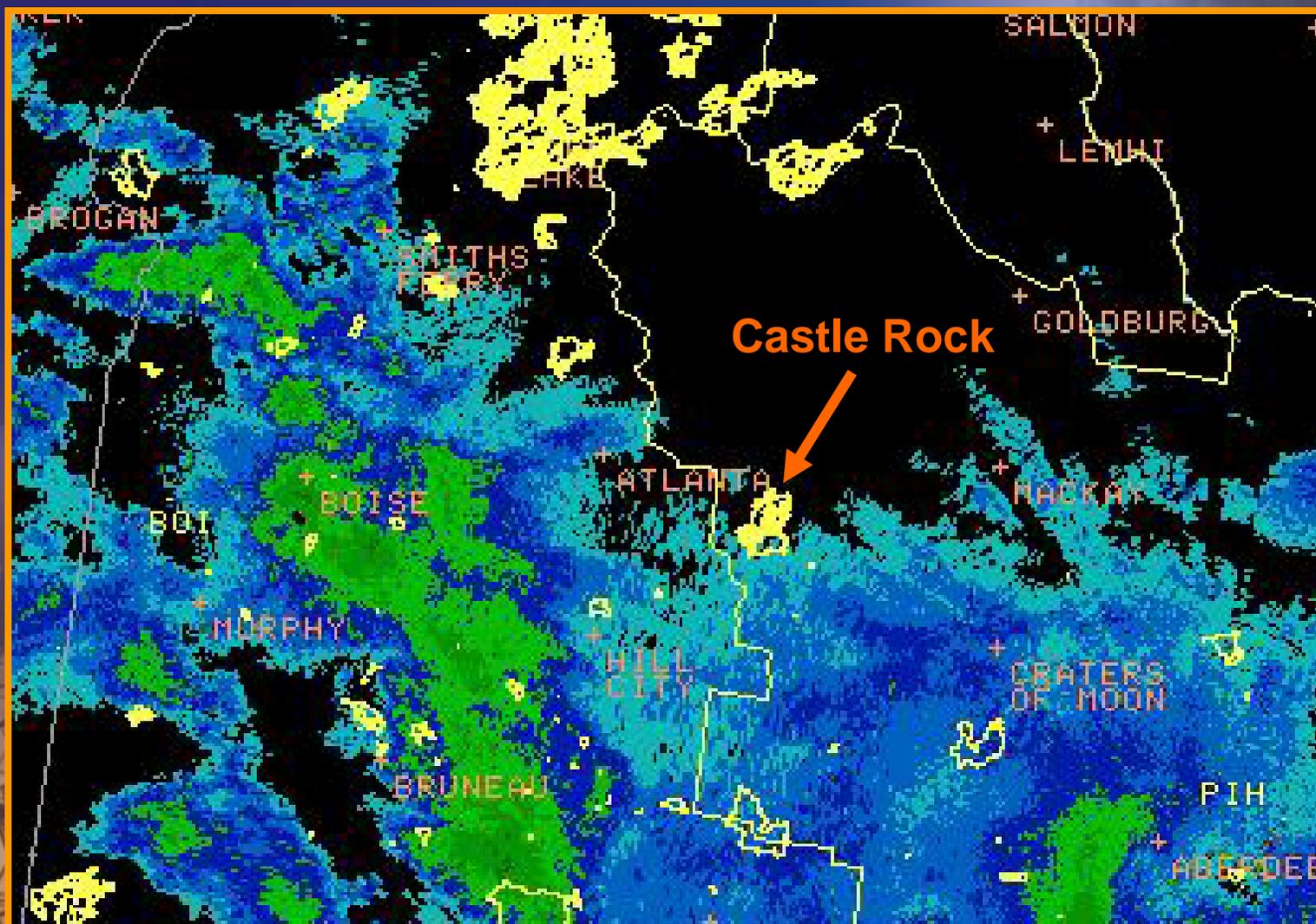
INTERACTION BENEFITS



- “Eyes- / hands-on” hydro expertise in burn areas
- Direct input to WFO for follow-on operations; increases team focus and response to customers
- Continued & improved NWS presence with USFS and other agencies...productive info exchange
- Input to siting of monitoring equipment that benefits USFS and NWS
 - Two portable RAWS stations installed in Castle Rock area in Sep
 - Improved precipitation monitoring during fall '07 and valuable surface obs data during winter '07-'08

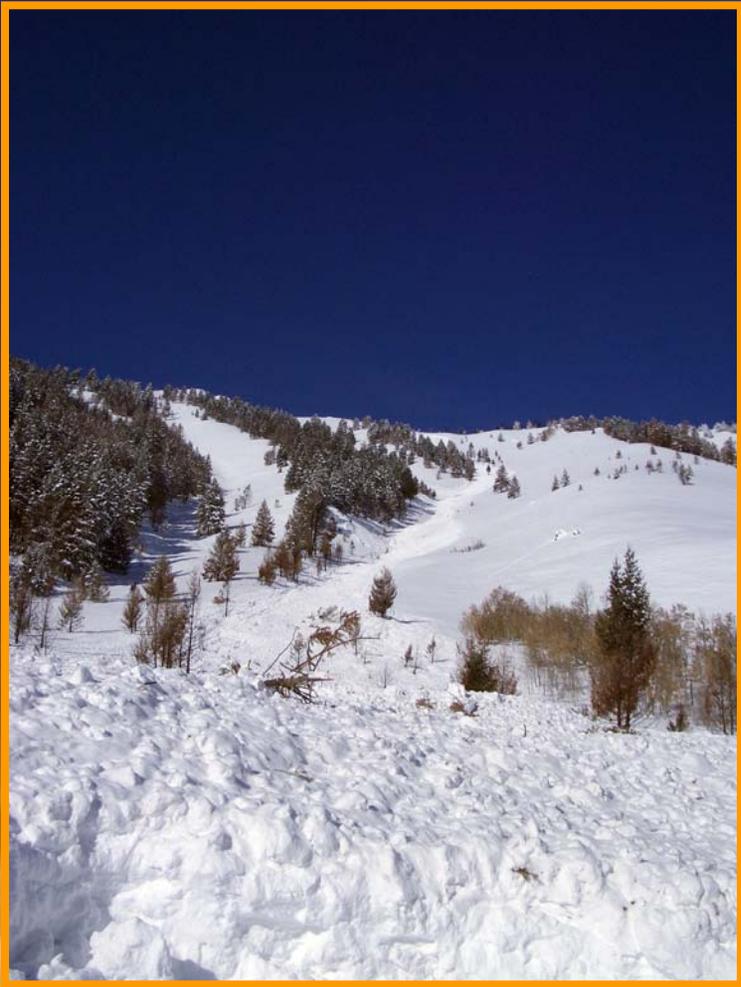


USFS BURN MAPS ON RADAR





FIRE AND ICE



USFS

- Typically, fire area concerns drop signif. with first snowfall
- Castle Rock fire presented problems well into winter:
 - Proximity of burn area to the wilderness-urban interface
 - Steep, historically avalanche-prone terrain
 - High number of backcountry skiers and snowmobilers
 - Fire destroyed large areas of vegetation opening “new” skiable areas while removing usual snowpack anchors



WINTER SEASON SUPPORT



- **PIH WFO has close working relationship with USFS Sawtooth NF Avalanche Center (3-person avy forecast / education team in Ketchum)**
 - **WFO produces daily avy wx guidance product and transmits (long-line / Web / NOAA wx radio) avy warnings from SNFAC**
- **Pre-season meeting addressed increased avy potential in burn area**
 - **La Nina expected to be key factor in above-normal precip pattern**
 - **Loss of tree canopy increases risk of wind-loaded slopes**



ACTIVE AVY SEASON



USFS

- WFO provided advanced notice of 19" & 15" snow-fall events in Jan
- Numerous slides have occurred on both burned and unburned slopes
- Several evac notices issued by county EM; homes damaged
 - One home hit twice
- To date, avalanche warnings issued on 9 days



COLLABORATION



- Two-way communication is essential
 - Ongoing process...from initial call in Aug thru winter events and back into convective season
 - Face-to-face; site visits
 - NWS IEM Chat
 - Participation in LEPCs and exercises
 - **** Pass info to staff members ****
- Establish and improve relations with EMs, govt agencies, media partners, etc.
 - Either side can initiate discussion
 - Focus on support “requirements”
 - What – when - how



QUESTIONS?



