

Southwest Area Incident Management Team #1
Bea Day, Incident Commander

July 2, 2017 — July 12, 2017

Burro Fire

Executive Summary

Overview

On Friday June 30, 2017 at 10:23 am the Burro Fire was detected approximately 8 miles northeast of Tucson, AZ. The area has poor to no ground access so resources were staged in the Redington Pass area and air tankers were dispatched to the fire.

By Saturday afternoon the fire had grown to 330 acres and was within 3 miles of the Mt. Lemmon Highway. The nature of the values at risk located along the highway and on top of Mt. Lemmon clearly indicated a complexity level requiring assignment of a Type 1 Incident Management Team. Bea Day's Type 1 Incident Management Team (IMT) was ordered the afternoon of Saturday July 1st. The Team was in-briefed at 12:00 pm on Sunday July 2nd at the Southern Area Search and Rescue building. Due to the proximity of the fire to the community of Summerhaven it was decided to begin evacuation planning immediately. Formal transfer of command occurred at 8:00 pm that evening.

Evacuations began at 5:00 pm on July 2nd and were completed by 9:00 am July 3rd; residents and business owners were allowed to return the afternoon of July 10th. Resources prepped the Mt. Lemmon Highway in anticipation of the west flank of the fire reaching it within a few days. The west flank was contained by Hotshot crews going direct when it was apparent that the fire spread could be stopped with handline, cold trailing and aircraft support. Existing roadways and trails were improved to contain the fire on the eastern and southern flanks. The northern flank was contained by natural barriers. Monsoon rains started providing relief the evening of Sunday July 9th, with all areas receiving rain late afternoon on Monday July 10, 2017.

The onset of the monsoon rains was the final event needed to secure the fire perimeter to the extent that operations could be returned back to the local unit.



Photo by M. Fiddler

Burro Fire

Fire Number: **AZ-CNF-000618**

Budget Code: **0305 P3K3J1**

Location: **Tucson, AZ**

County: **Pima**

Jurisdiction:

- **Coronado National Forest**
- **AZ Dept. of Fire & Forestry Management**

Ordering Office:

- **Tucson Interagency Dispatch Center**

Detection Date/Time:

- **June 30, 2017 at 10:23 am**

Fire Origin:

- **Lat: 32.37417**
- **Long: 110.6325**

Fire Cause: **Unknown**

Date IMT Team #1 Assumed Command:

- **July 2, 2017 at 8:00 pm**

Date Command Returned to Local Unit:

- **July 13, 2017 at 6:00 am**

Contained/Completed: **95%**

Final Acres: **27,238**

Cost: **\$8,948,444**



Photo by S. Bliss

Values at Risk

- Incident responders and the public
- Structures, facilities & infrastructure along the Mt Lemmon Highway
- Bellota Ranch & Buehman Canyon structures
- Relationships with the Community, Elected Officials, Cooperators and Stakeholders

INCIDENT OBJECTIVES

Based on the Delegation of Authority and Leader’s Intent provided by the agencies to the IMT, the following incident objectives and incident requirements were developed.

- Place Firefighter and public safety as a priority over all other objectives and requirements.
- Keep the fire:
 - East of Mt. Lemmon Highway
 - South of the Control Road
 - West of the North Redington Road
 - North of the East Redington Road
- Protect structures, facilities & infrastructure along the Mt Lemmon Highway
 - communication towers & observatory on Mt. Bigelow
 - private facilities under special use permit in Willow Canyon and Soldier Camp Recreation Residences
 - Organizational Ridge structures, camps & federal historic sites
 - Univ. of AZ Sky Center, Radar Base & associated facilities on Mt. Lemmon
 - private lands within the village of Summerhaven
- Protect structures at Buehman Canyon & the Bellota Ranch
- Protect T & E Species Habitat for the N. Goshawk, Mexican Spotted Owl, W Yellow-bellied Cuckoo, Mexican Garter Snake, Gila Chub
- Protect cultural resources sites near Araster Springs, Pictograph Springs & Sollers
- Limit damage to Rangeland infrastructure
- Protect historic wood culverts located south of Mt. Bigelow Road
- Protect the concrete spring boxes and water lines at and near Boy Scouts Springs

INCIDENT REQUIREMENTS

- Ensure all firefighting actions limit impacts and consider loss to T&E species and habitat as identified through management action points (MAP), maps, and resource advisors.
- Use minimum impact suppression tactics in Pusch Ridge wilderness.
- Limit use of Pusch Ridge wilderness for dip sites.
- Protect drainages by avoiding ground disturbance in perennial or ephemeral creeks, ponds, and tanks; limit surface water contamination by aerially delivered suppression chemicals; keep chemical mixing tanks at least 150 feet from streams and wetlands; limit impacts due to drafting water.





Photo by B. Knapp

A water handling group was created to support 20 water sites. The lack of water on the mountain made this operation a critical part of daily operations.

SUCCESSSES

- Established Rose Canyon Lake as a dip site therefore eliminating the need for multiple pumpkin dip sites & associated equipment and personnel. Use of the lake eliminated the need to rely on stock tanks therefore reducing the impact on cattle operations.
- Utilized the Colorado Multi-Mission Aircraft to provide timely intelligence for multiple sections.
- Adapted tactics and strategy to the environment in a manner that reduced unnecessary exposure while ensuring we were prepared to protect the VARs if anticipated weather did not materialize.
- Adjusted tactics rapidly to take advantage of the terrain and fuel where direct action increased short-term risk but helped reduce uncertainty and long-term exposure.
- Implemented a phased approach to structure protection that ensured we were positioned to protect values at risk while reducing the exposure and costs associated with a larger structure protection effort.
- Developed a close working relationship with the Cooperators of the University of AZ Observatories, FAA, Trico, news media & local emergency management services.
- Worked with Pima County hydrologists and the Coronado National Forest to advise residents of the potential flooding.
- Imbedded a Logistic Section Chief at Expanded Dispatch during mobilization & the initial three days of ordering to prioritize orders during a period of limited resource availability.
- Scaled the ordering process & methodically placed orders in an effort to not overwhelm the system and increase resource tracking and allow time for adjustments for arriving resources.

STAFFING AT MAXIMUM LEVELS

Total Personnel	695
Hand Crews—Type 1	4
Hand Crews – Type 2	2
Hand Crews – Type 2 IA	5
Camp Crews – Type 2 IA	4
Engines – Type 3	28
Engines – Type 4/5	3
Engines – Type 6	13
Water Tenders	32
Dozers	3
Helicopters – Type 1	3
Helicopters – Type 2	2
Helicopters – Type 3	2

TRAINEES

BY SECTION

Command	11
Operations	29
Plans	11
Logistics	6
Finance	6

BY AGENCY

BIA	6
BLM	3
FWS	1
NPS	1
PVT	1
STATE	15
USFS	36
TOTAL	63

PRIORITY PROGRAM	16
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MEDICAL STATISTICS

Advanced care injury/illness	10
Hospital transports	5
Care refusals	5
Patient contacts	1,400

MEALS SERVED

Breakfast	6,220
Lunch	7,527
Dinner	6,199
TOTAL	19,946

PLANS

Plotter paper	3,600 feet
IAPs produced	3,500



SIGNIFICANT EVENTS

- Rose Canyon Lake was refilled with **1,193,640** gallons of water to replace what was used for suppression operations.
- Sixty eight thousand gallons (**68,000**) of water were delivered to the fire from Rose Canyon Dip Site in the first two hours of flight time by type one helicopters. This rate of water delivery could not have been achieved utilizing a series of water- tender-supported pumpkins situated on turn outs along the Mount Lemon Highway without a significant increase in the number of water tenders and support personnel.
- Executing mandatory evacuation of Willow, Palisades, Summerhaven, Ski Valley, Observatory, and recreational campers within the first several hours of taking over command of the Burro Fire.
- Anticipated and prepared for fire to go through Buehman Peak and into bear saddle where terrain was more favorable for ground resources to engage. This preparation allowed for resources to engage rapidly; increasing the potential for success.
- Outflow winds from a thunderstorm pushed the fire south towards the Bellota Ranch. This necessitated burning out before the main fire reached the Bellota Ranch and carrying the fire to the east along the Redington Ranch Road. This resulted in 3 spots, the largest being 13 acres, however the spots were contained and the ranch was protected.
- Black Hills Wildfire Module successfully managed a medical emergency when a crew member received multiple scorpion stings. As symptoms became more severe transport options were re-evaluated and patient was medivaced with a positive outcome.
- There was a lack of field safety officers, Emergency Medical Techs and ambulances for first couple of days.
- The National Weather Service issued “Excessive Heat Warnings” on several days.
- Public Information Officers hosted a Media Tour to Mt. Lemmon to provide information about the team transition, evacuations, Firewise efforts, Pima County emergency notification system, and current fire restrictions.
- Non-perishable food items were collected around the camp and donated to two food banks in the Tucson, AZ area.
- Three human resource issues occurred during the Team’s assignment; one of which was a verbal sexual harassment allegation that was resolved at the incident.

CHALLENGES & RESOLUTIONS

- Record temperatures created density altitude conditions beyond the limitations of the incident aircraft, personnel were advised at the morning briefing on the potential for this condition and notified when the aircraft became unavailable.
- The Colorado Multi-Mission Aircraft was ordered back to Region 2 thru non-standard procedures, objection to this was voiced and documented without any resolution.
- A large portion of the fire was in inaccessible terrain and the engagement of crews on the fires edge was not always practical, DIVS identified criteria where the risk to ground resources could be mitigated and prepared to change tactics to react to fire environment if these conditions are met.
- Ensuring aerial suppression was only used where effective, even when no other alternative was available and fire is progressing towards VARs. Daily reinforcement of the unwillingness of the team to increase exposure to aviators and ensuring there is a clear understanding of the overall strategy and the standards for acceptable aviation use are clearly understood.
- Basing actions on current and predicted weather is more difficult when faced with the added complexities of the predicted monsoonal moisture. Multiple plans were developed and continually evaluated and updated to maintain a high probability of success.
- Driving through urban areas, long distance mountainous driving on steep, narrow, winding roads with numerous wildlife. Minimized travel with the development of three Spike Camps.
- Evacuating residents in an orderly & safe manner in a compressed timeframe. Discussed the event with C & G and then developed a two-stage evacuation plan with Pima County Sheriff's Department.
- Record high temperatures necessitated the use of hydration products to mitigate heat related illness, Missoula Technology & Development Center (MTDC) does not recognize the product Drip Drop as a necessary water additive so federal guidelines do not permit its purchase; AZ Department of Fire & Forestry Management, a state agency, purchased the hydration supplement for the incident.



OPERATIONS

SUPPRESSION STATISTICS

Hand line	2.7 miles
Dozer line	6.3 miles
Road as line	35.7 miles
Completed line	48.0 miles
Perimeter distance	64.0 miles

SUPPRESSION SUPPORT

Dip Sites	8
Divisions/Groups	7
Drop Points	39
Helibases	3
Helispots	14
Spike Camps	3
Water Sources	20



*1,193,640 gallons of water replaced in
Rose Canyon Lake*

AIR OPERATIONS

Aviation flight hours 401

DELIVERY

- Gallons of water 1,052,191
- Gallons of retardant 239,374
- Pounds of cargo 13,593



PUBLIC INFORMATION

SOCIAL MEDIA

FACEBOOK

Total "Reach"	165,000
People Engaged	95,162
Live Community Meeting Views	10,200
Page Likes	1,322
Followers in US & 44 other Countries	1,885

TWITTER

Impressions	66,900
Profile Visits	2,397
Followers	159
Mentions	30
Tweets Sent	85

TRADITIONAL OUTREACH

Phone Calls Received	300
Live Media Interviews	40
Taped Media Interviews	53
Trapline Locations	16
Citizen Contacts	1,500

COMMUNITY STATISTICS

Evacuees	350
Cooperators	25

STRUCTURES THREATENED

Residences	400
Commercial Buildings	200
Minor structures	200

Facebook Live

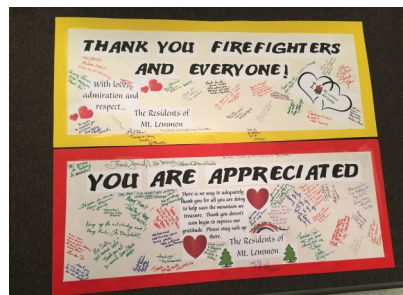


The IMT received overwhelming public support and appreciation for conducting daily community meetings (with the exception of the 4th of July).

- Eight community meetings were held during the incident (one on Mount Lemmon, seven in Tucson).
- American Sign Language (ASL) and Communication Access Real-time Translation (CART) services were provided to ensure equal access community meetings once the team assumed command of the fire.
- There were 1,093 in attendance with 891 Facebook livestream views.
- Streamed CART captioning averaged around 100 views per meeting, peaking at approximately 150 views. There were 880 views of the CART text file following the meetings (the most clicked on links during the incident).

ASL and captioning services were provided for 15 video updates during the incident.

- We received favorable feedback from the community in-person and online for providing ASL services.
- Facebook Live Daily Updates from Operations, IMET and FBAN were equally popular.

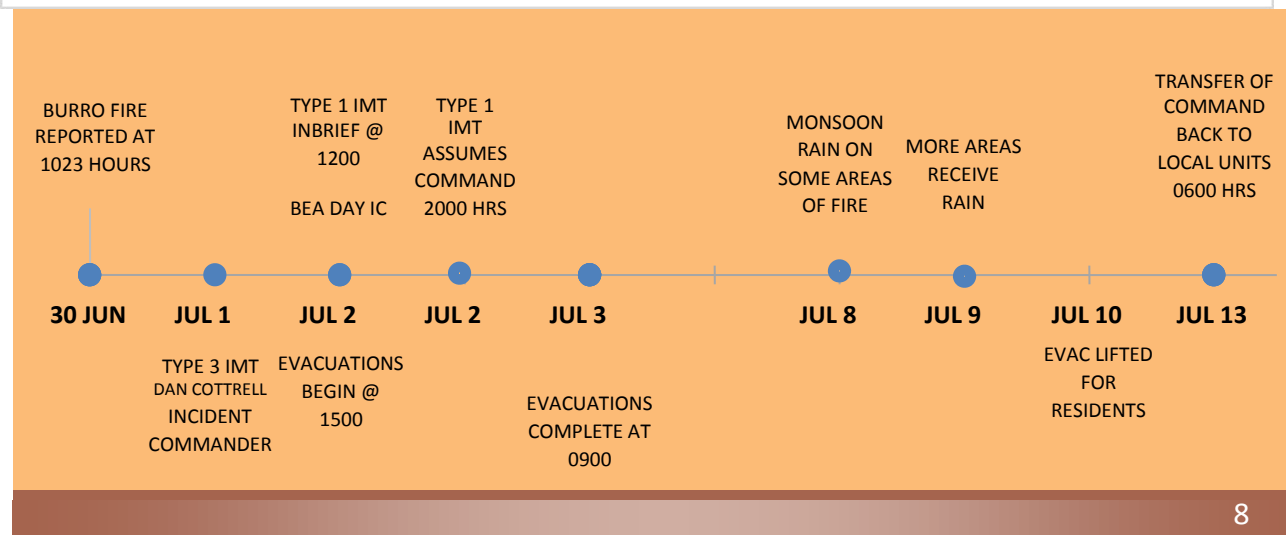


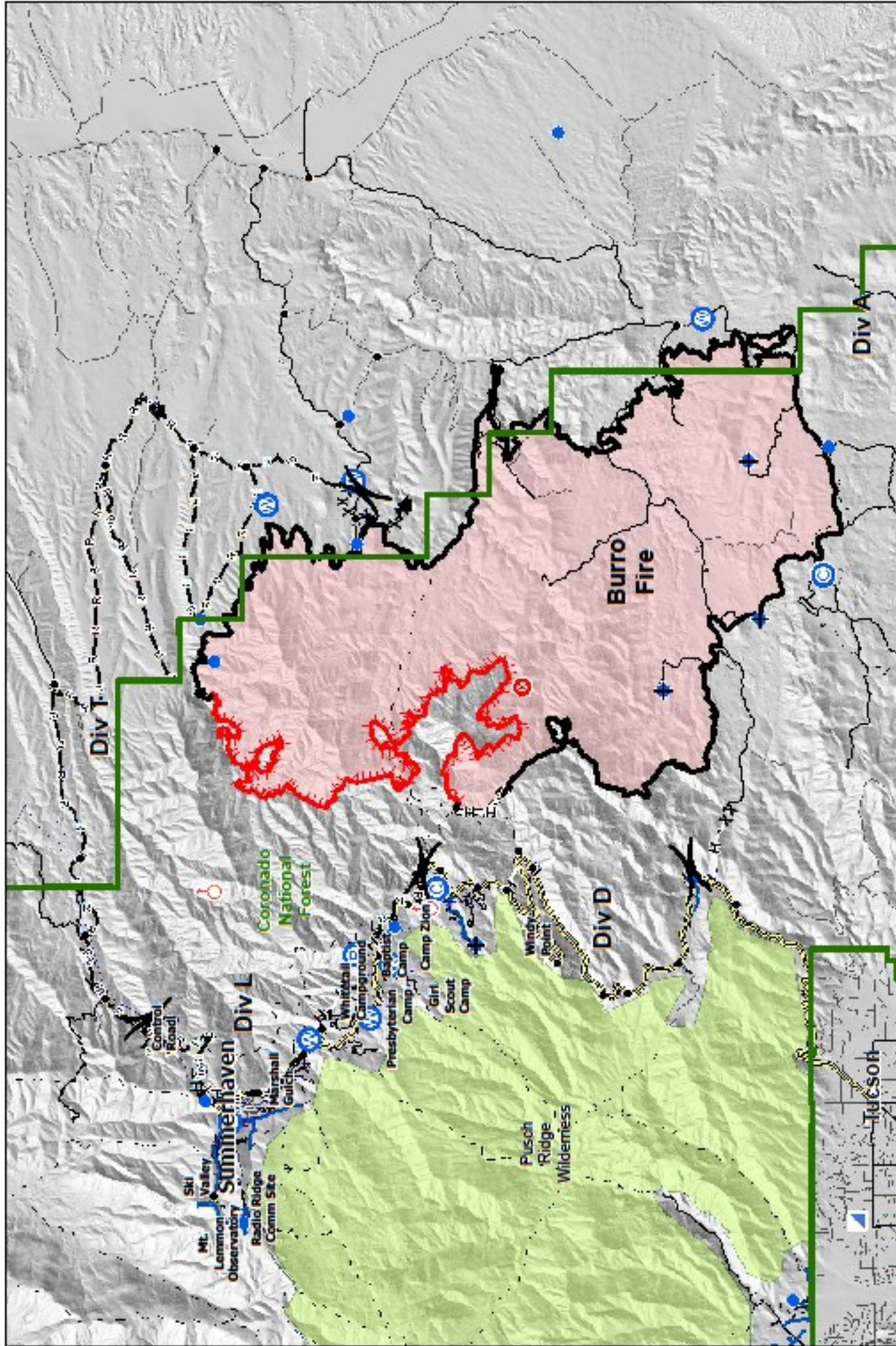
\$8,948,444



Final Estimated Cost as of 7/12/17

INCIDENT TIMELINE





Burro Incident Operations
AZ-CNF-000618
 Operational Periods 7/2-12/2017
 GIS Acres 27,238
 7/8/2017 10:00

Value at Risk Fire Origin Fire Origin
 Dip Site Helipoint
 Camp Incident Command Post
 Drop Point Repeater
 Staging Area Water Source

New Start 7/8/2017 H - Completed Hand Line XXX Completed Dozer Line
 Planned Fire Line Completed Fire Line
 Uncontrolled Fire Edge Completed Line
 Fire Perimeter

0 0.5 1 2 3 4 Miles
Map Created 7/20/2017, 8:23:10 AM, by RSC