

2019 NIROPS National Summary

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November 13, 2019
NIROPS Closeout, NIFC, Boise



2019 – A Slow Year in CONUS

- 4.6 million acres burned, 56% acres in AK
- 70% of the ten year US average (2009-2018)
- 35% of the ten year Conus average
- Never went to PL4*, first time since 2010
- First missions – June 12 in AZ, NM, & CA
- Last mission – ?

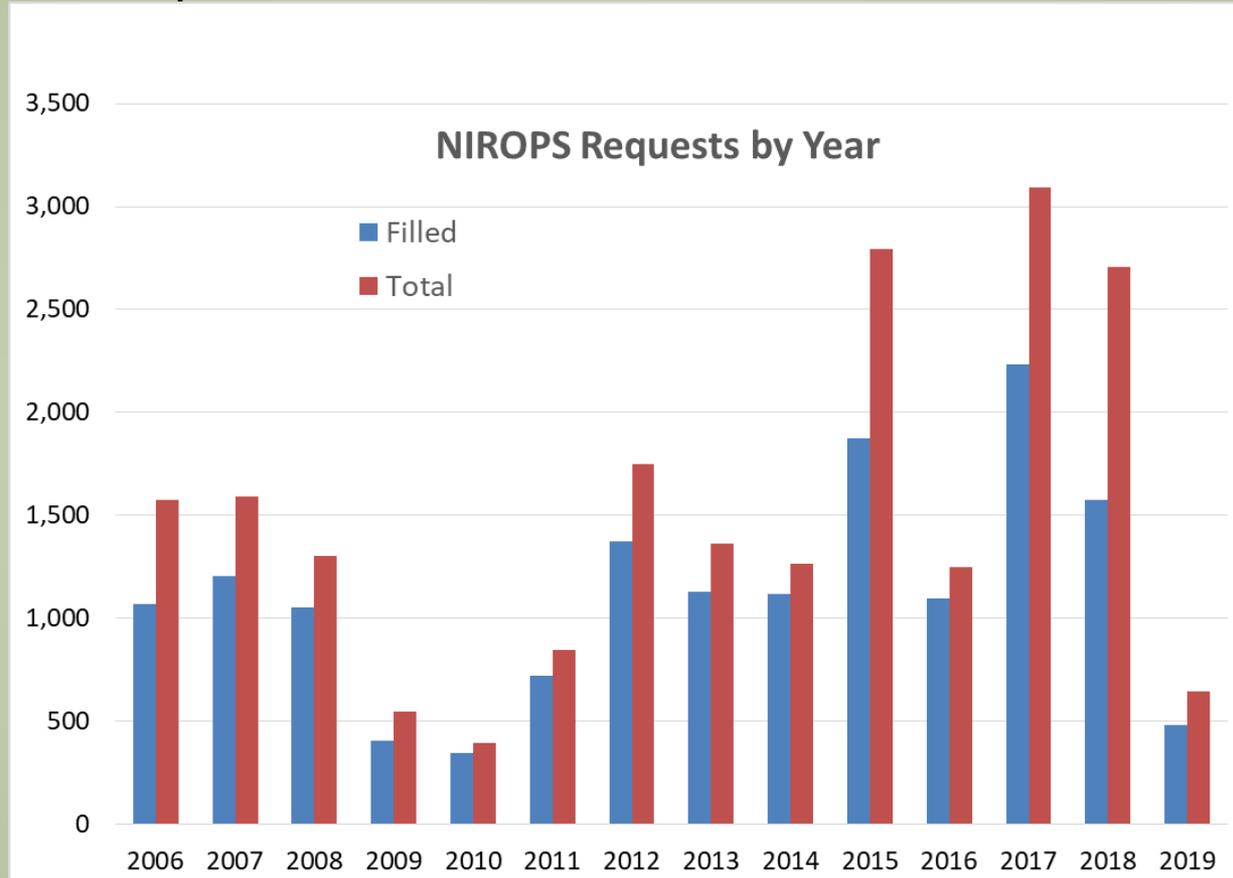
Acres from IMSR 11/5/19

*PL = Preparedness Level (1 thru 5)

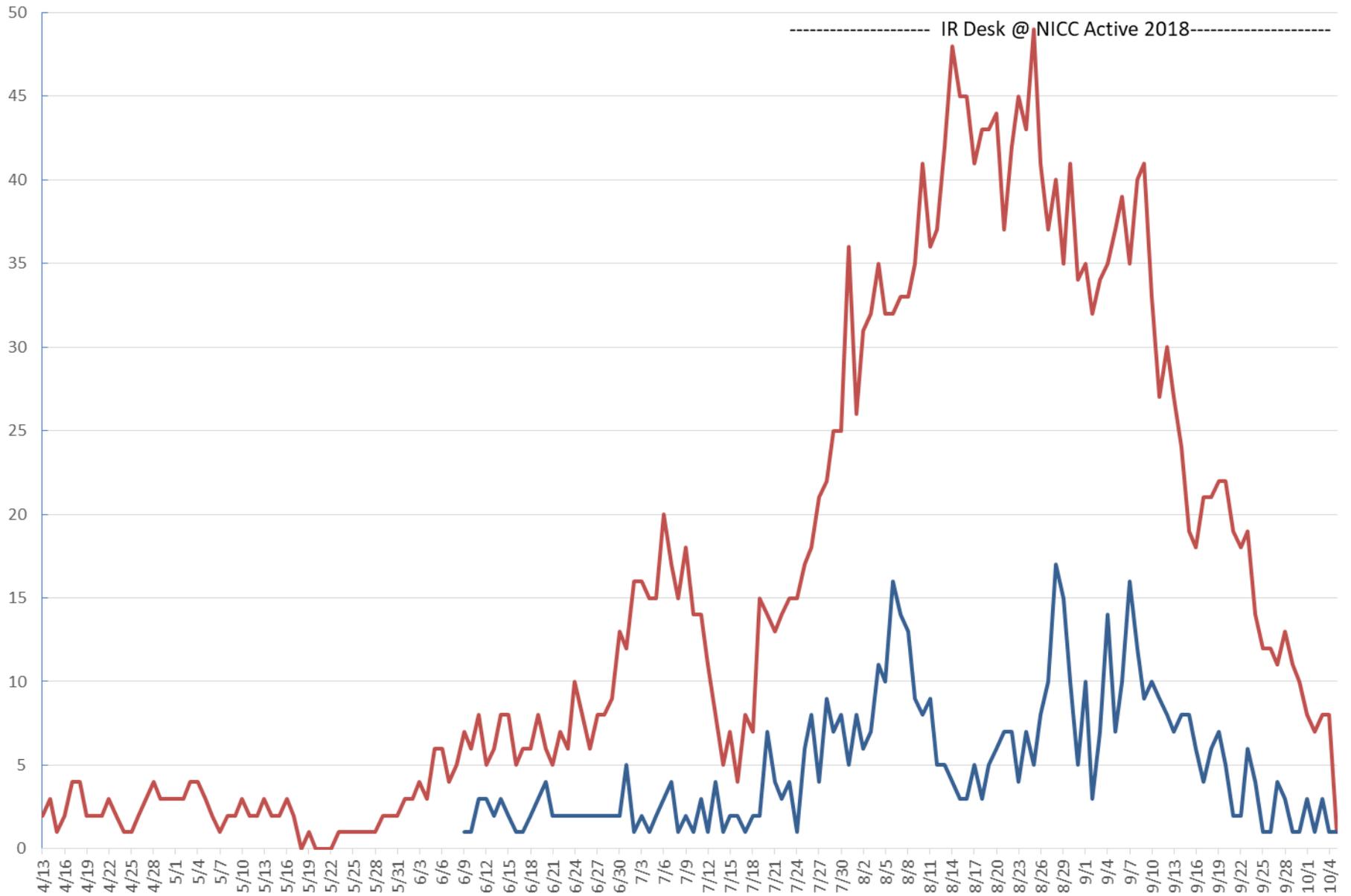


2019 NIROPS Requests

- 643 total requests with 483 filled
- 10 yr avg (2009-2018) 1601 requests and 1188 filled
- 5 yr avg (2014-2018) 2221 requests and 1579 filled
- 25% UTF rate,
13% non-Wx UTF
- Aircraft 3 filled
6% of missions
(15% in 2018)



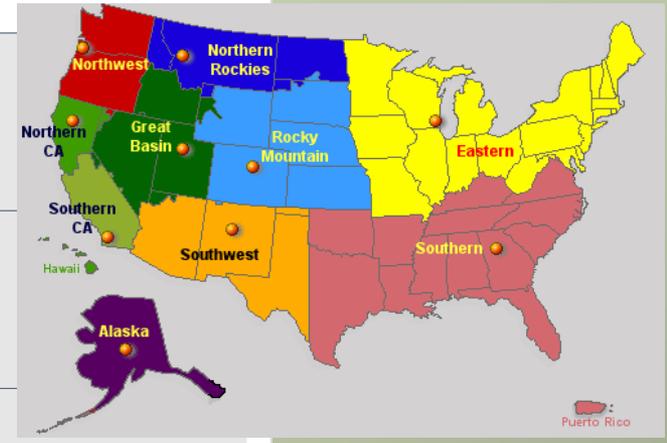
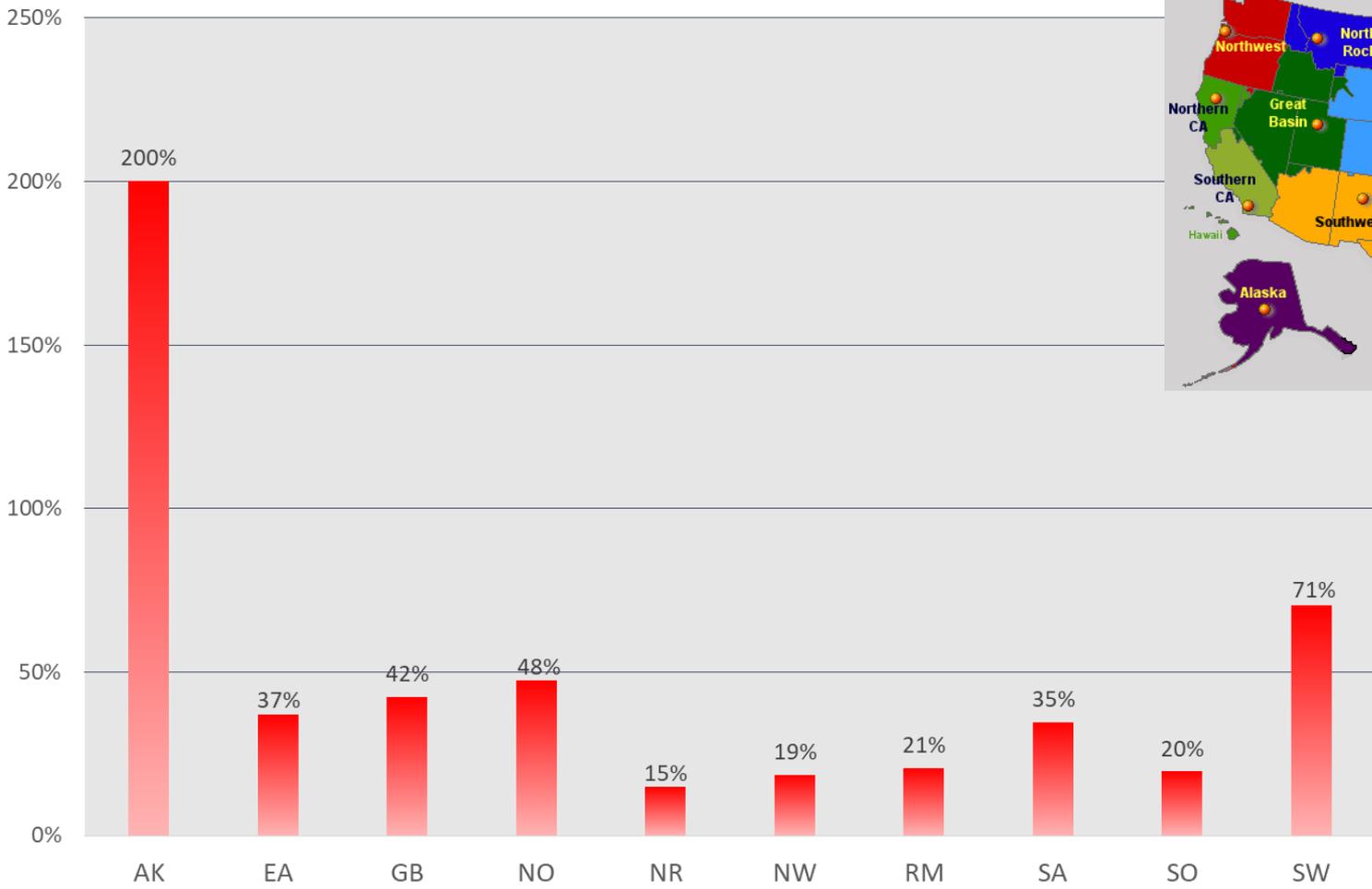
NIROPS requests, 2018 vs 2019





Fire Activity by GACC

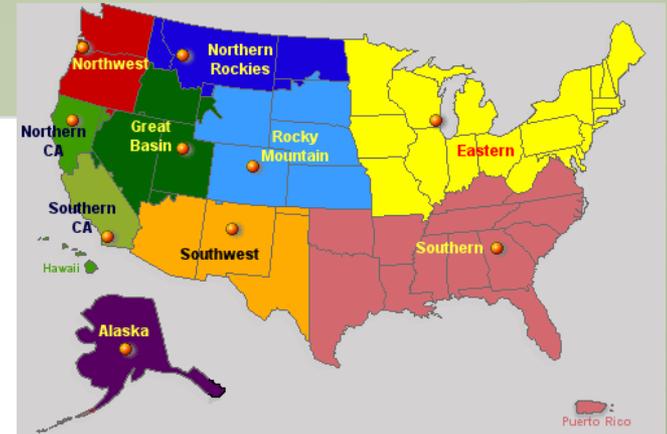
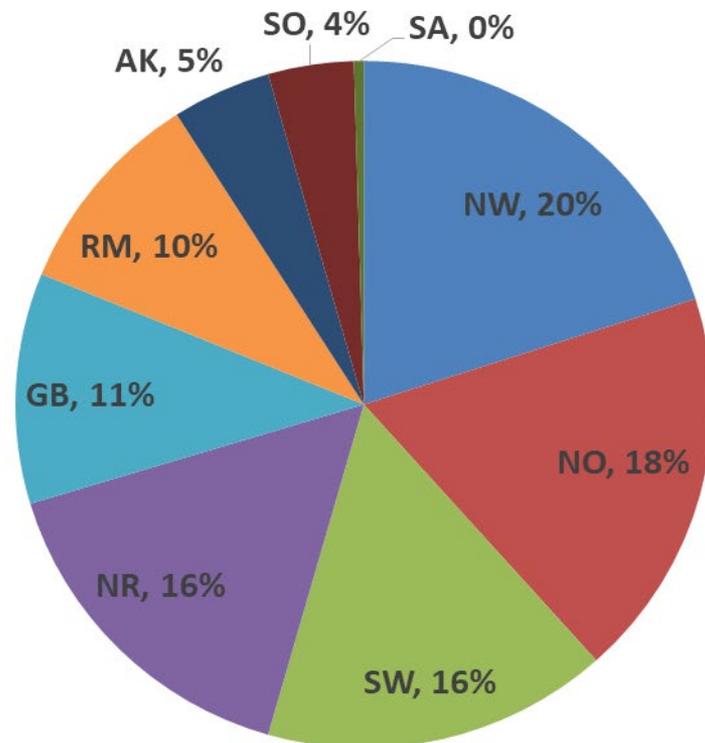
Acres Burned by GACC - 2019
(as a percent of each GACC's 10-year average)





2019 – Orders by GACC

Percent of NIROPS orders by GACC



“Busiest” Night – 8/6/19, 16 Fires

● N149Z (14 fires)

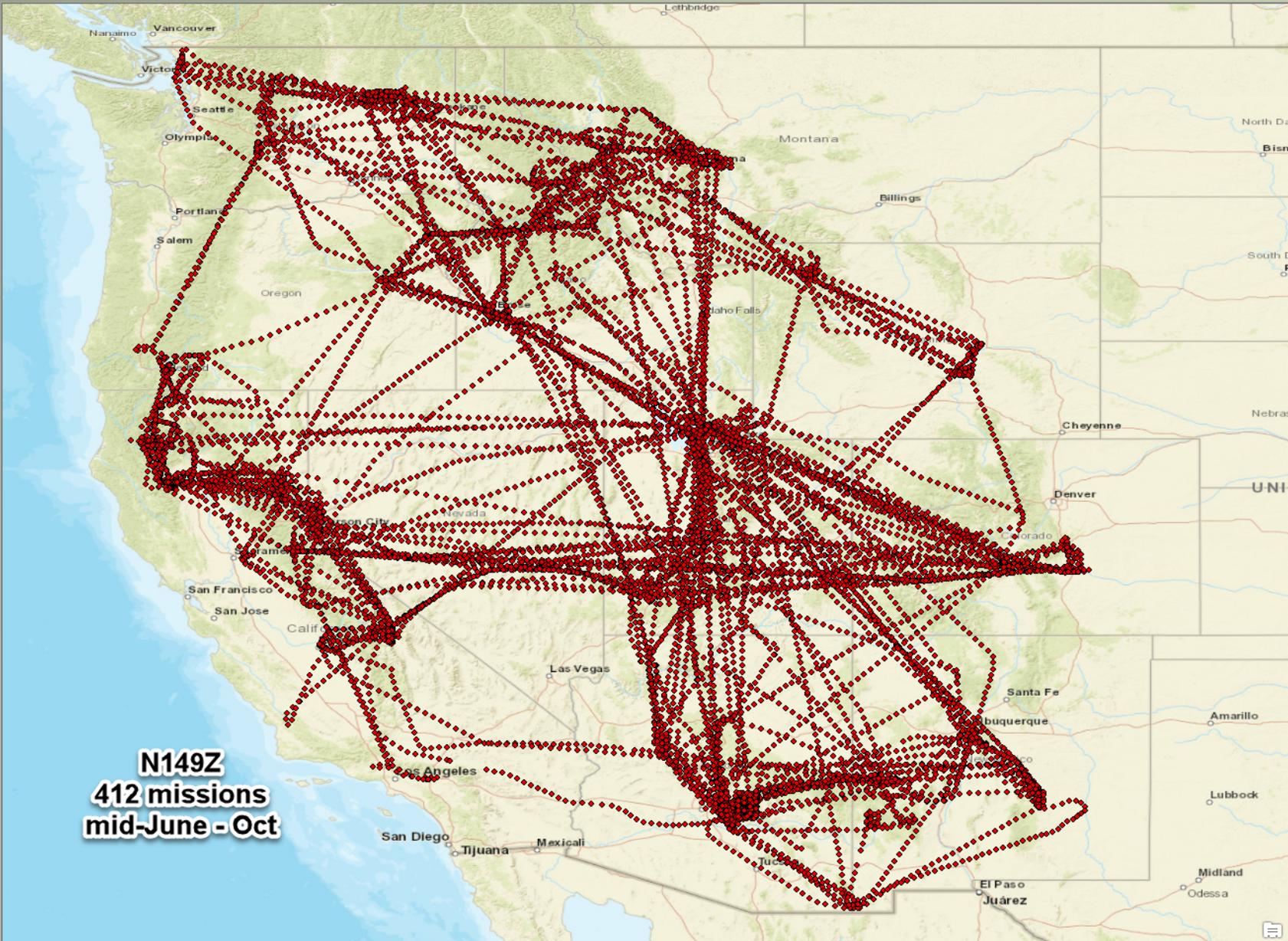
- Horsefly, Snow Creek, Nevada
Creek, Beeskove (MT)
- Cove Creek, Nethker, Crab,
Ranger, Myers, Wilies, Elbow
Bend, Barren Hill (ID)
- Williams Flats (WA)

● Tenax (2 fires)

- East Evans, 163 HK Complex (OR)

2018 Busiest night was 8/23 with 40 fires flown
2017 Busiest night was 9/1 with 48 fires flown

NATIONAL INFRARED OPERATIONS



N149Z
412 missions
mid-June - Oct



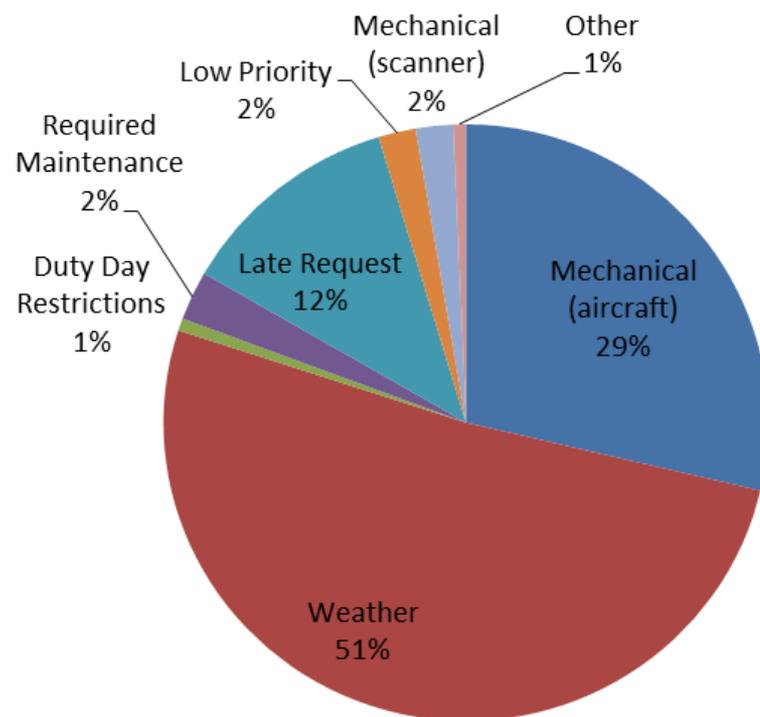
IR Mapping Contract

- Awarded to 5 vendors, only 2 used in 2019
- Contract good thru 2020 fire season
- Tenax flew 40 missions in OR, WA, CA
 - July 25 – Aug 14
- Courtney Aviation flew 1 mission in CA



UTFs (Unable to Fill)

- 150 total UTFs (NIROPS only)
- UTF rate drops from 25% to 13% when weather UTFs are not counted
- UTF for Aircraft 3 - 25% (20% non-weather)



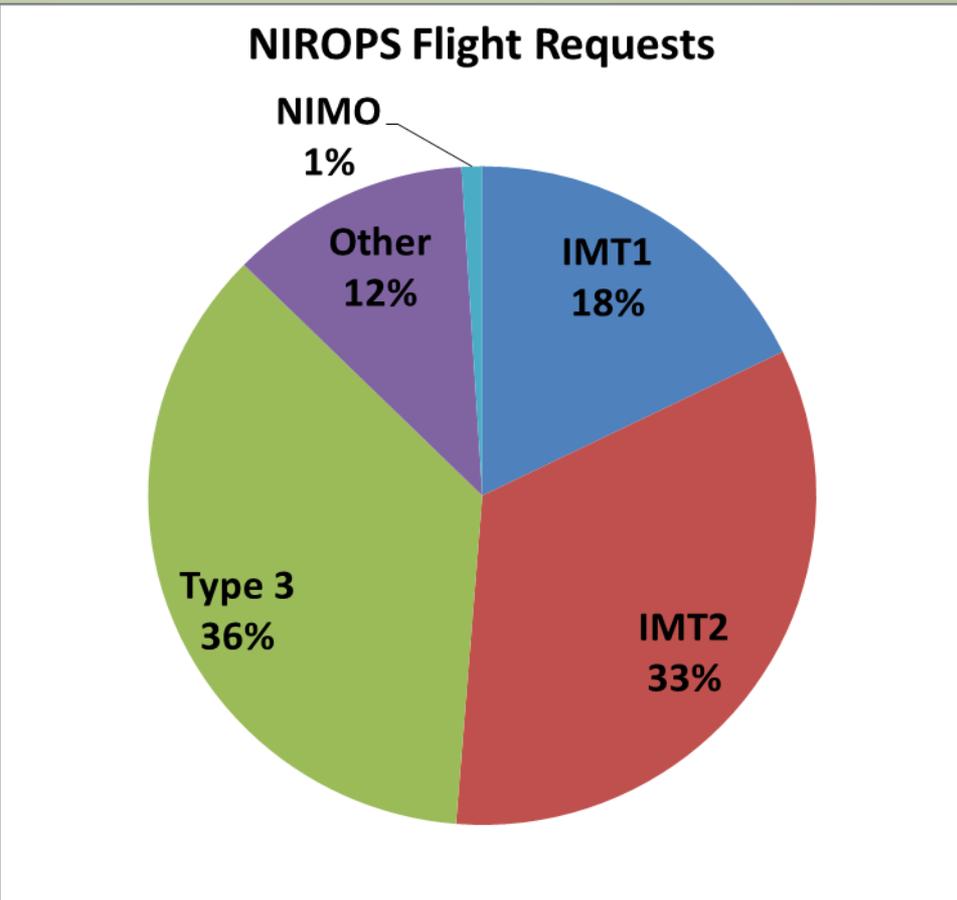
2019 NIROPS UTF Reasons



Who is Requesting?

- 53 orders did not fill out (out of 654)
- Prioritization is key

Team Type	non-weather UTF rate
Other	21%
Type 3	18%
Type 2	5%
Type 1	6%
NIMO	0%



Prioritization of Fires for IR

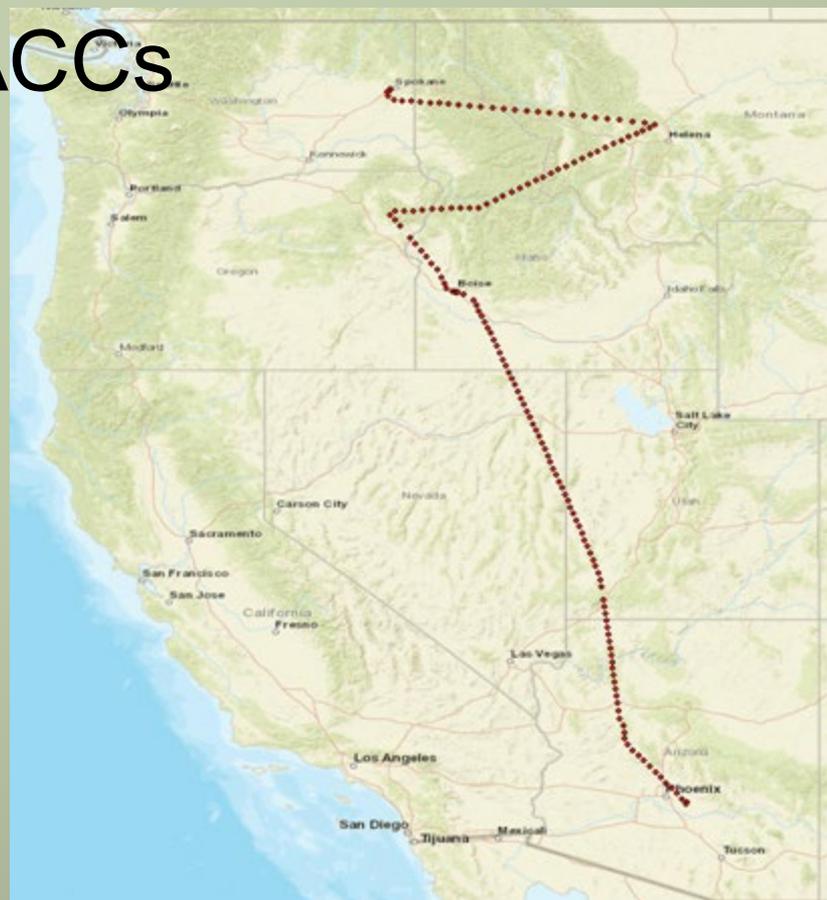
- Type of team assigned – Type 1, 2, 3, etc.
- Values at risk, WUI, evacuations
- Priority listings in National IMSR
- GACC priority listings
- ★ Geographic location and grouping of fires ★
- Activity during the day
 - Satellite fire detections – MODIS, VIIRS
 - Plume activity – visible satellite
- Consultation with NICC
- Heat detected from previous NIROPS flights
- Expected weather over incident
- Feedback from IRINs

Extended Support to Incidents

- Decker (CO) – 29 flights
- South (CA) – 21 flights
- Woodbury (AZ) – 18 flights
- Swan Lake (AK) – 16 flights
- Taboose (CA) – 15 flights
- Beeskove (MT) – 12 flights
- Middle (CA) – 12 flights

Quirks of a Slow Season

- On Aug 19, five orders in NIROPS, all filled
- All were in different GACCs
 - Sheridan – SW
 - Granite Gulch – NW
 - Nethker – GB
 - Horsefly – NR
 - Swan Lake – AK (AC3)



Quirks of a Slow Season

- Small fires - “if you’re not doing anything else...”
- Lots of requests for fires less than 100 acres down to a few acres
- Typically located near a larger fire - target of opportunity
- Still have inappropriate/inefficient uses of NIROPS for isolated heat mapping

It Takes a Team!

- IR Techs - 10 person rotation including 4 new trainees
- Pilots – 3 FS fulltime
- 22 different IRINs, 1 trainee got assignment
- Vendors – Tenax and Courtney Aviation
- National IR desk never activated
- Aircraft 3 (Firehawk) coverage key during maintenance on NIROPS aircraft and AK support - AC3 liaison at GTAC and NGA analysts
- R4 Aviation maintenance crew
- Fire Imaging Program Manager key for interacting with vendors and briefing GACCs and IMTs on IR options

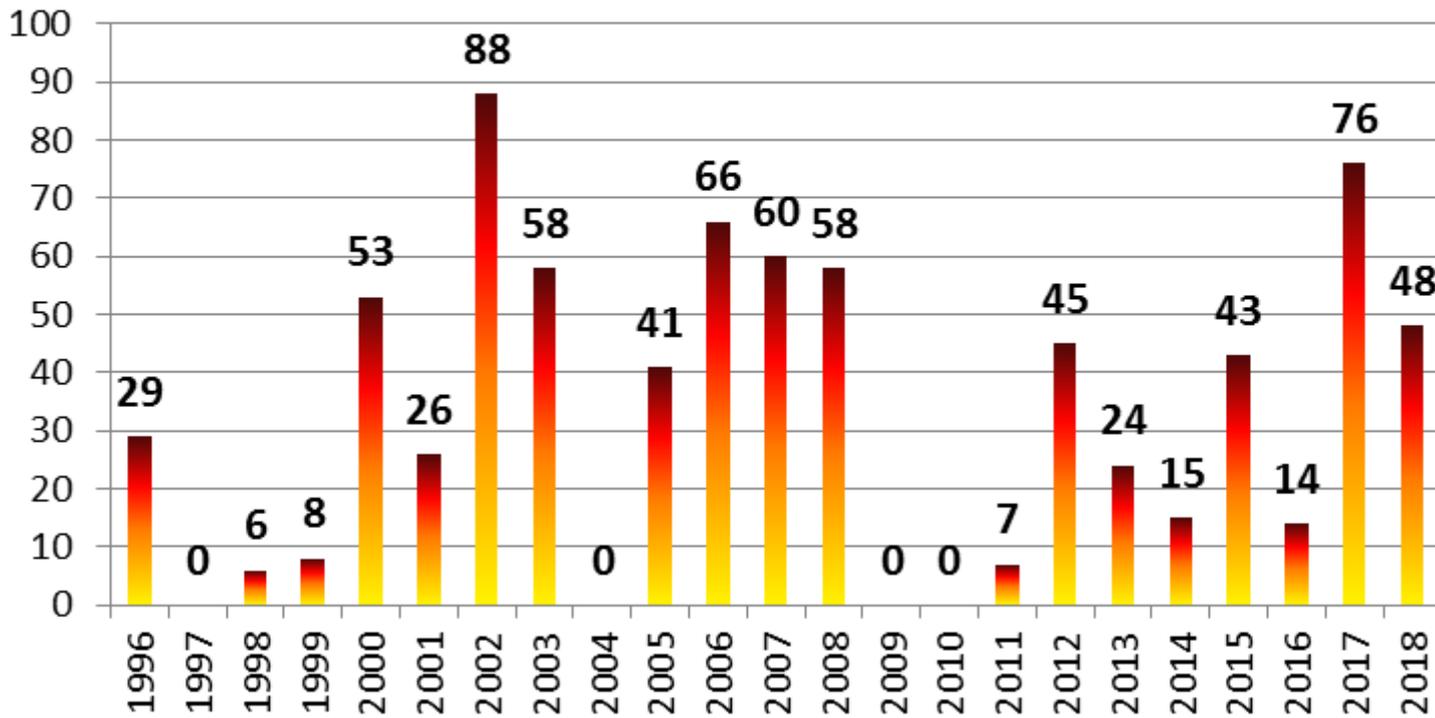
Takeaways from 2019

- Vendor support helped esp. with only one plane
- Planes are getting older every year!
 - 149Z – 35 years old (1985)
 - 144Z – 19 years old (2001)
- Coordination with other IR resources is key
 - DRTI, MMA, Owyhee Air, AA51, FS Cobras
 - Can sometimes reduce NIROPS requests
- We got lucky!



Next Year?.....

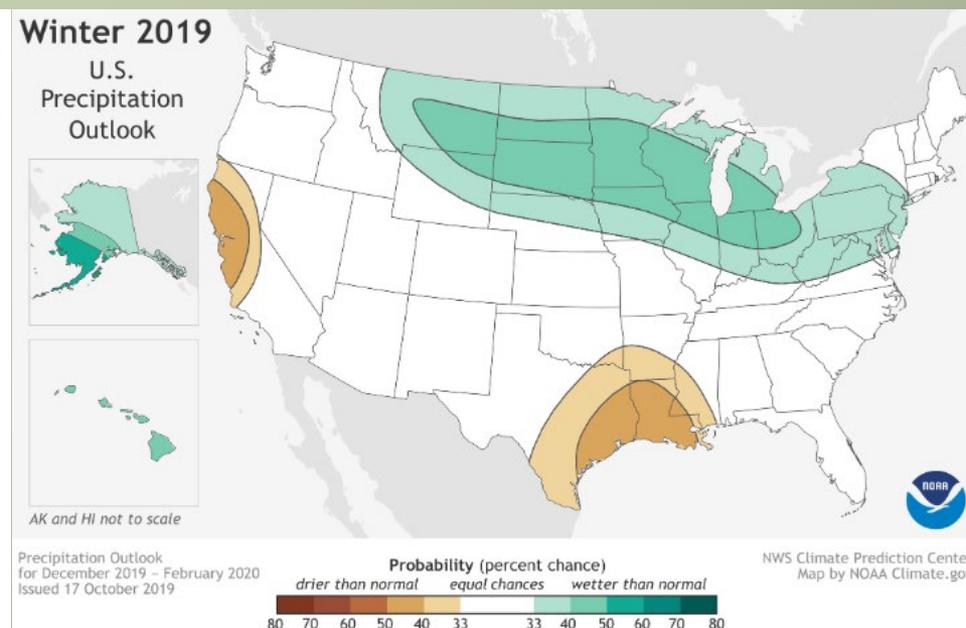
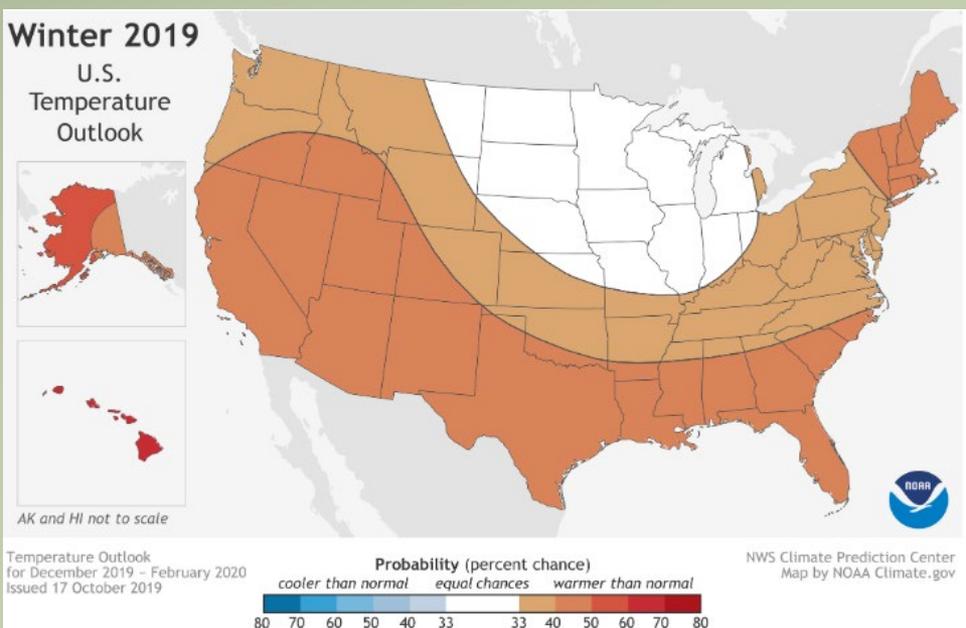
Days at National PL 4 or 5





Looking ahead to 2020

- Neither El Niño or La Niña
- Short-term climate patterns like the Arctic Oscillation will drive winter weather with potential for large swings in temps and precip.



Get ready for next year!

Magalia

Pulga

Paradise

Camp Fire, 1754 PDT, Nov 8, 2018
Growth of 54,586 ac in 11.5 hours
from ignition

