



2019 Wildland Fire Season Update and FY20 Spring Fire Cost Estimate

Senate Finance Subcommittee

Presentation by John “Chris” Maisch-State Forester/Director
Division of Forestry
Alaska Department of Natural Resources
February 27, 2020



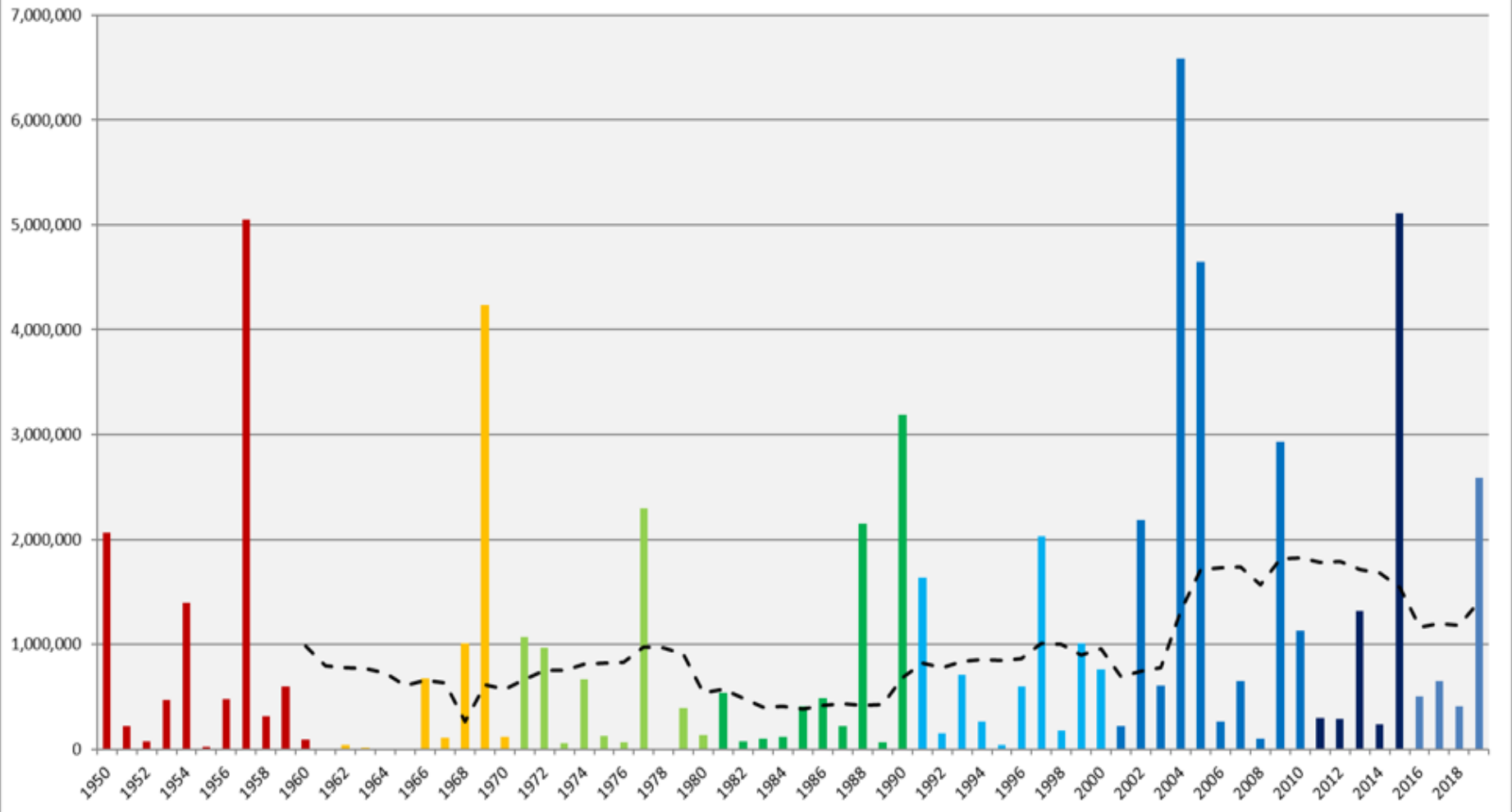
2019 ALASKA WILDFIRE SEASON

- Ranked #11 on list of AK's biggest fire seasons for acres burned and #8 for number of fires.
- 15th time since 1939 that Alaska surpassed the 2-million-acre mark for acres burned in a season. Six of those have been since 2000.



2019 ALASKA WILDFIRE SEASON

Acres Burned 1950-2019 with 11-year rolling average



2019 ALASKA WILDFIRE SEASON

Second-most destructive wildfire season in Alaska history behind only 1996. There were a total of 158 structures destroyed in fires in 2019, including 59 primary homes, most of which were lost in the McKinley Fire near Willow in August.



2019 ALASKA WILDFIRE SEASON

There were several DOF fires in the wildland urban interface that required evacuation notices, alerts and orders, including the Bluff Drive, Swan Lake, Shovel Creek, Montana Creek, Malaspina, Kobe, Smith Creek, Rainy Pass, Doshka Landing, McKinley, North Fork and Levelock fires.



2019 ALASKA WILDFIRE SEASON

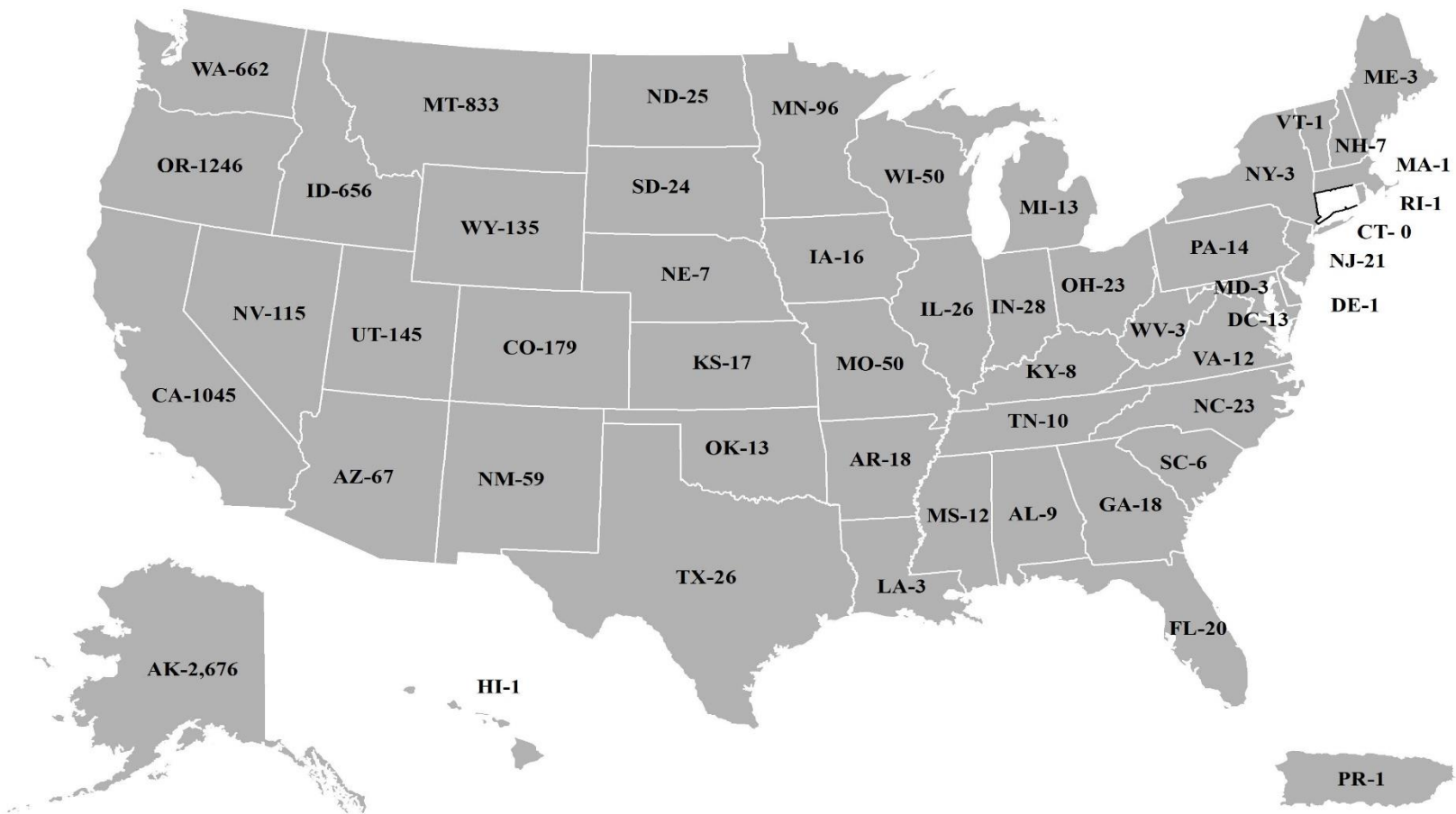
- 122 crews were imported from L48, some of which made two trips.
- More than 140 smokejumpers from the L48 were brought to AK to help. There were 206 smokejumpers in AK on July 14, which was more than half of all the smokejumpers rostered in the U.S.



2019 ALASKA WILDFIRE SEASON

RESOURCES DEPLOYED TO ALASKA FIRES 2019

Personnel Deployed: 8,444



2019 ALASKA WILDFIRE SEASON

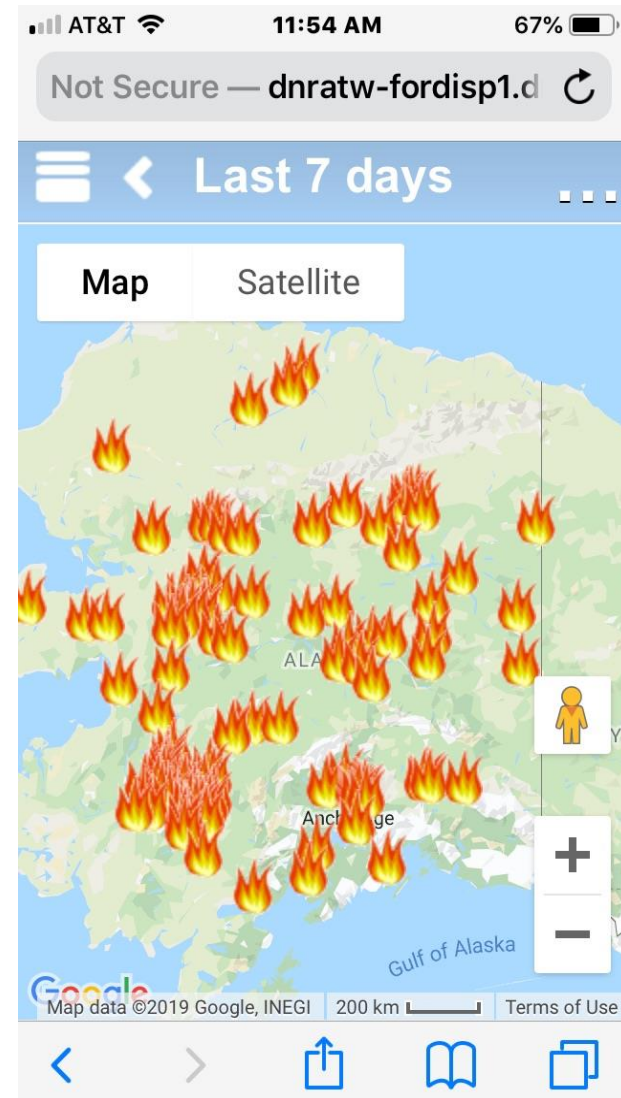
The nearly 2.6 million acres that burned in Alaska represented more than half the total acreage – approximately 4.7 million acres – that burned in the United States in 2019.

Fires and acres burned by state in 2019

	<u>State</u>	<u>Fires</u>	<u>Acres</u>
1.	Alaska	719	2,589,893
2.	Arizona	1,852	378,798
3.	Idaho	956	283,083
4.	California	8,092	258,731
5.	Texas	5,925	201,363

2019 ALASKA WILDFIRE SEASON

- Approximately 20,000 lightning strikes across Alaska between June 4-13
- The single biggest day was on July 11 with 25,157 lightning strikes



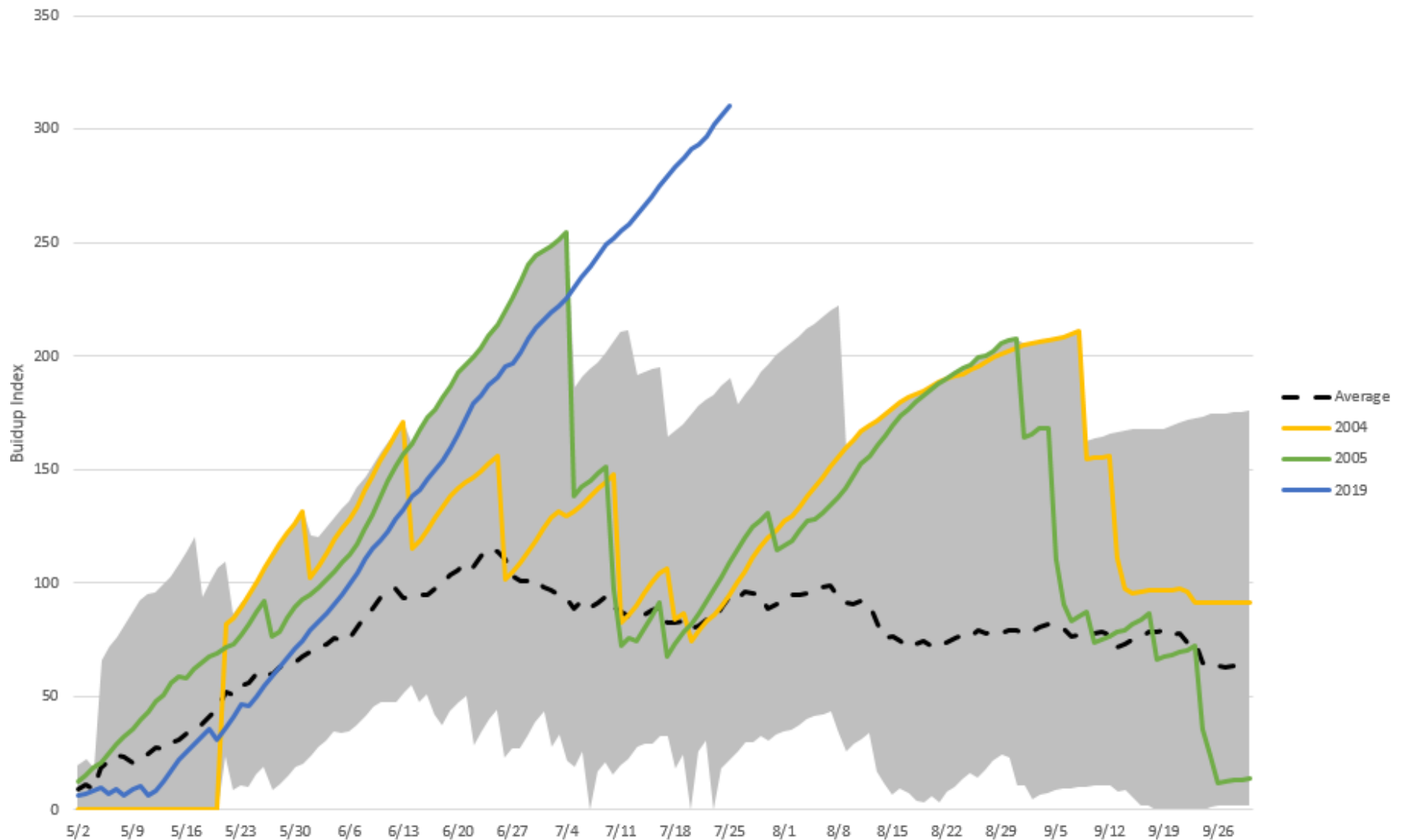
2019 ALASKA WILDFIRE SEASON

Weather was a major factor:

- Warmest March on record contributed to early snowpack melt, producing high-fire danger conditions by late April.
- Record-high fire indices across the state contributed to a high level of fire activity and long-duration fires that were very resistant to control. Extensive mop-up was required on many fires due to the depth of burning.

2019 ALASKA WILDFIRE SEASON

Chalkyitsik Historic BUI Values 1998-2019



2019 ALASKA WILDFIRE SEASON

Mop-up on the line
and near structures



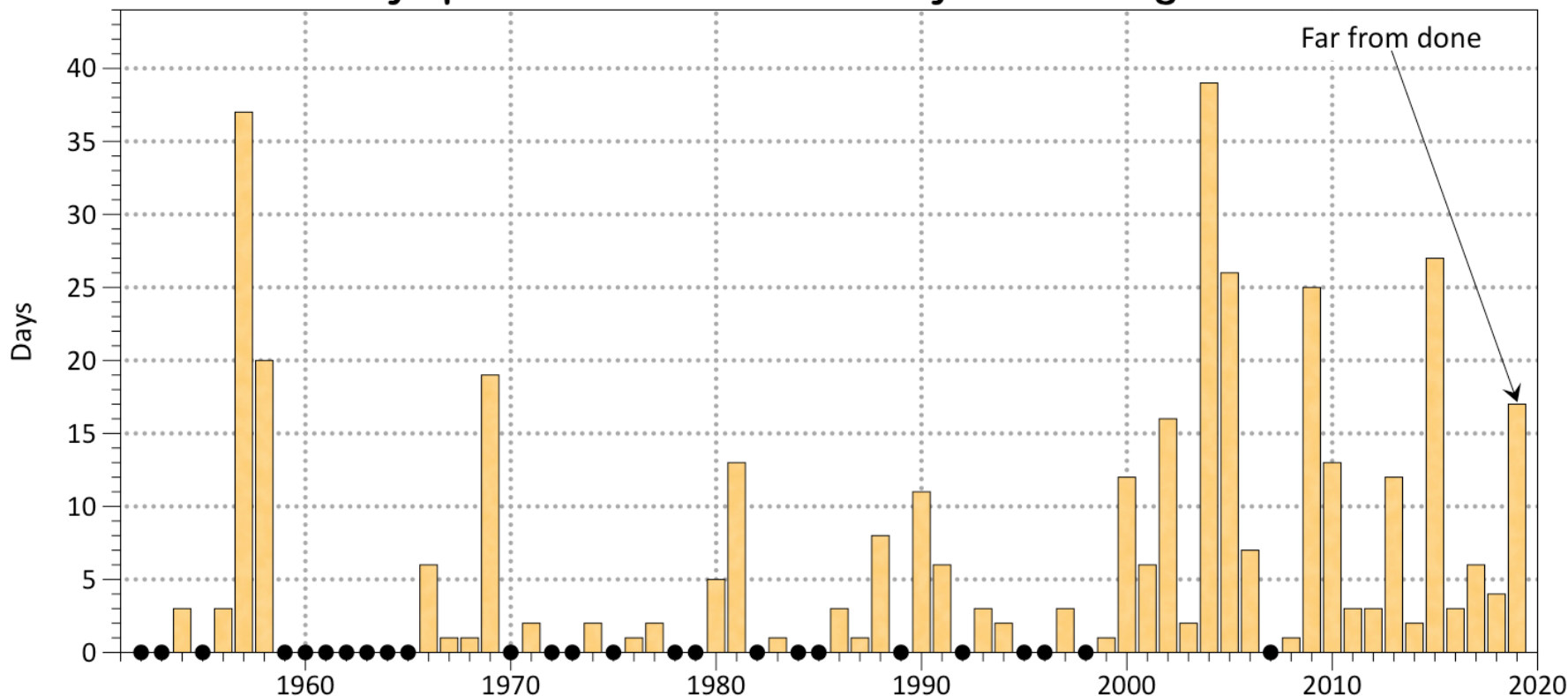
Checking for heat

2019 ALASKA WILDFIRE SEASON



2019 ALASKA WILDFIRE SEASON

Fairbanks, Alaska, 1952-2019 Days per Summer with Visibility Restricting Smoke



Graphic and analysis by @AlaskaWx

Data source: NOAA/NCEI & NWS

Criteria: Days at Fairbanks International Airport
with visibility ≤ 6 miles May through Sept
2019 data through July 11

2019 ALASKA WILDFIRE SEASON

Smoke Conditions in Chalkyitsik



2019 ALASKA WILDFIRE SEASON

- Shovel Creek Fire
(21,309 acres)
- Prompted
evacuations and
threatened hundreds
of homes northwest
of Fairbanks



2019 ALASKA WILDFIRE SEASON

Shovel Creek Fuel Break and Burnout



2019 ALASKA WILDFIRE SEASON

Governor Dunleavy Meeting Hand Crew



2019 ALASKA WILDFIRE SEASON

Ignition Methods



2019 ALASKA WILDFIRE SEASON

- Swan Lake
(167,164 acres)
- Longest staffed
wildfire in AK
history, with
personnel
assigned for
four months



2019 ALASKA WILDFIRE SEASON

- An estimated cost of \$49 million, it was the most expensive fire in the country in 2019.
- No structures destroyed but very disruptive due to long duration, road closures & delays on the Sterling Hwy and smoke & economic impacts to local communities and Anchorage.



2019 ALASKA WILDFIRE SEASON

Fiscal Summary CY2019

- The Division of Forestry spent \$224.8 million in fire suppression funds: \$142.1 GF and \$82.7 FED authority
- The State is expecting to be reimbursed \$82.7 million for fires the State managed on Federal lands.
- Overall cost of the 2019 season for State and Federal agencies will be over \$300 million.

2019 ALASKA WILDFIRE SEASON

Three fires qualified for a Federal Management Assistance Grants:

- Shovel Creek
- Doshka Landing
- McKinley



Eligible costs are reimbursed at a 75% rate and will save approximately \$30 million in GF.

2019 ALASKA WILDFIRE SEASON

DOF Budget Structure- FY21

- RDU Fire Suppression Land & Water Resources- Three Components (all fund sources)
 - Forest Management & Development- \$7,999.5
 - Fire Suppression Preparedness- \$19,721.2
 - Fire Suppression Activity- \$27,101.4

2019 ALASKA WILDFIRE SEASON

Fire Suppression Preparedness:

- Funds fixed costs so the DOF is “ready to fight fire” (some examples)
 - Aviation resources daily availability costs- 2 air tankers and 6 medium helicopters
 - Personnel Costs- base eight
 - Facilities- warehouses, area offices, tanker bases etc.
 - Program Guides provide more details



Typical Fire Response

Fire Suppression Activity

Discovery of
a fire ...

Initial Attack

Helitack, fire engines,
crews, tankers

Extended Attack

Increase forces as needed:
mobilize crews, add emergency
personnel,
warehouse supplies, equipment,
aircraft, etc.

Large/Project Fire Response

Incident Management Team
Establish camps, coordinate
additional logistics, etc.

2019 ALASKA WILDFIRE SEASON

Fire Suppression Activity:

Funds the costs associated with suppressing wildland fire (some examples)

- Incident Management Teams (IMTs)
- Camp Support
- Aircraft
- Crews
- Equipment
- Direct and Indirect Personnel Costs
- Costs tracked by individual fire numbers
- Department Order 17 governs other types of expenditures that can be charged to Activity

2019 ALASKA WILDFIRE SEASON

- Estimates of the FY20 spring/early summer fire season are based on historic costs and a four-year average
- A declaration for \$16.0 million is anticipated for both GF and Fed Authority



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