

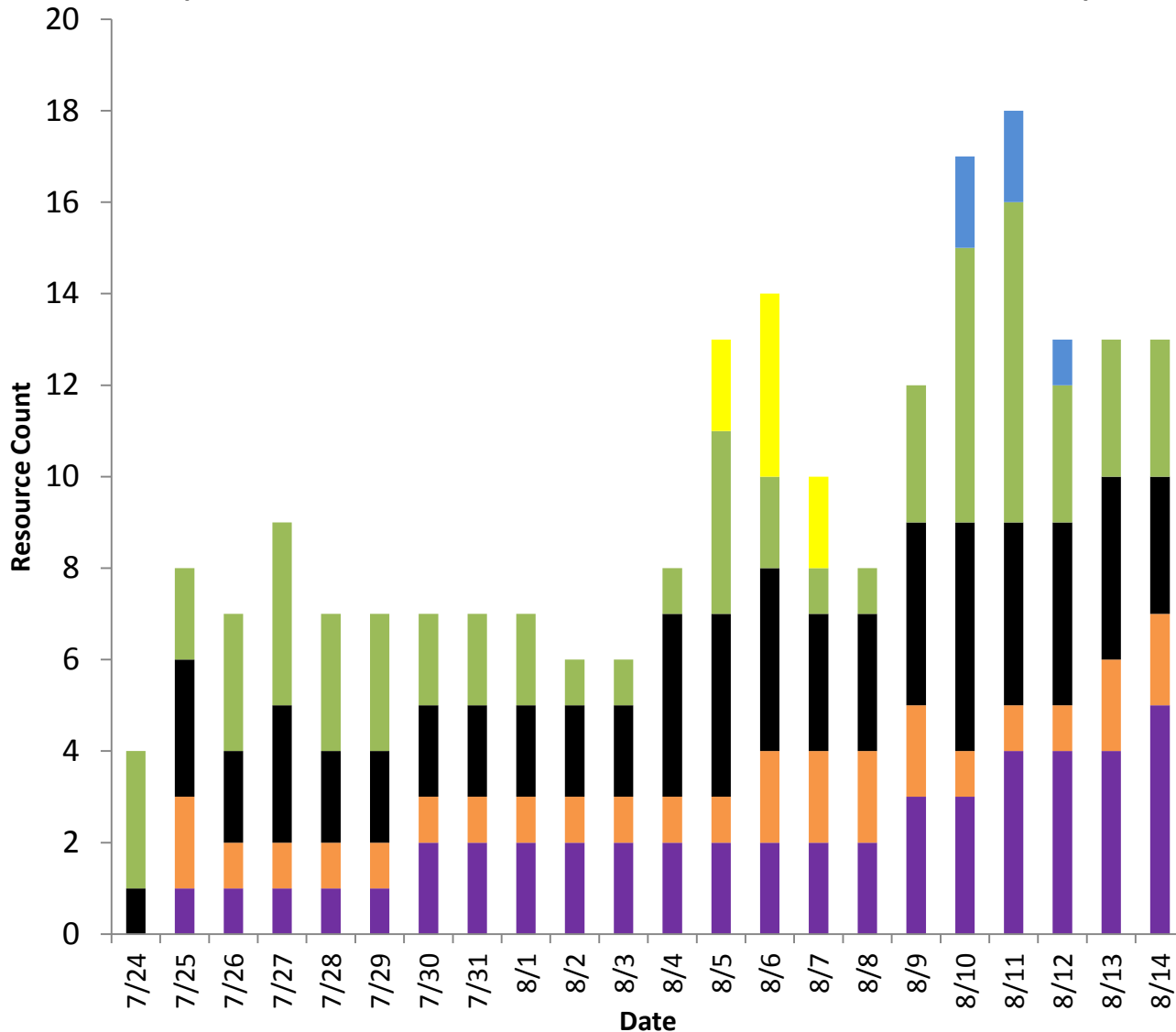
Incident Support: Analysis of aviation use for 2017 late summer wildfires on the Willamette National Forest

- Near real-time analysis through **8/14** using data through the previous day, including Additional Telemetry Unit (ATU) drop location data and information on aviation resources assigned (ROSS, ICS-209, AFF, etc.)

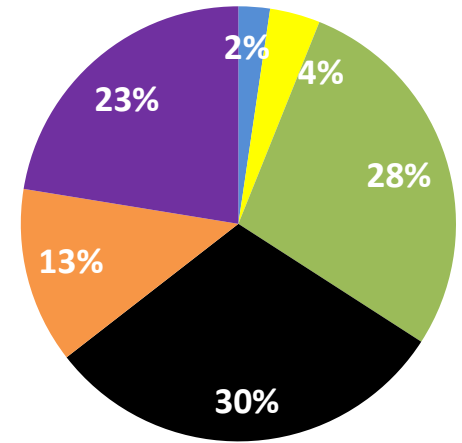


Willamette NF Fires: Daily distribution of aircraft assigned by category (ROSS, inferred from AFF, ICS-209, etc.)

DATA THROUGH 8/14

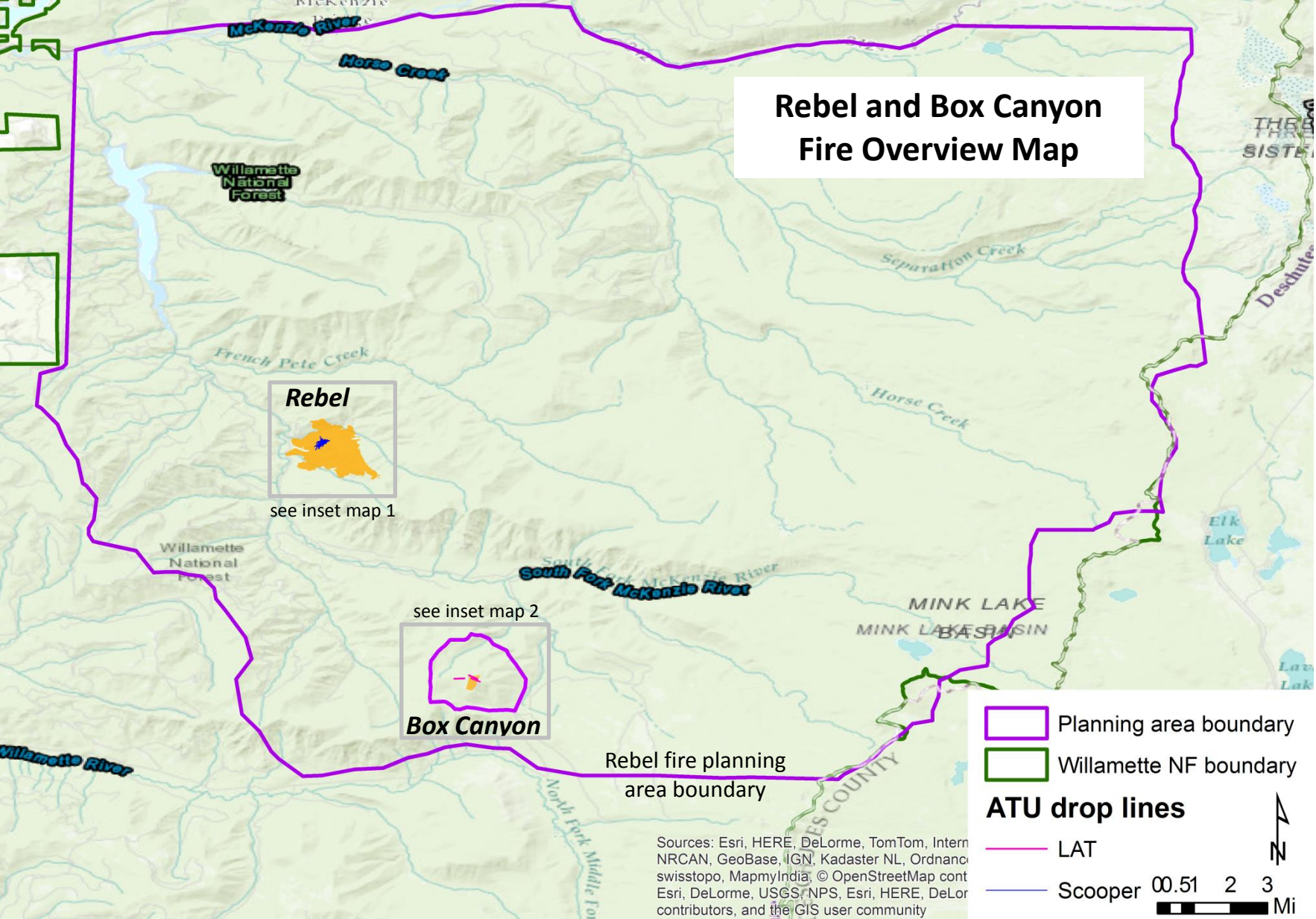


Proportion of daily aircraft assignments by type



- VLAT
- T1-2 LAT
- SCOOPEr
- SEAT
- FIXED WING: ASM/AIR
- T1 HELI
- T2 HELI
- T3 HELI

Rebel and Box Canyon Fire Overview Map



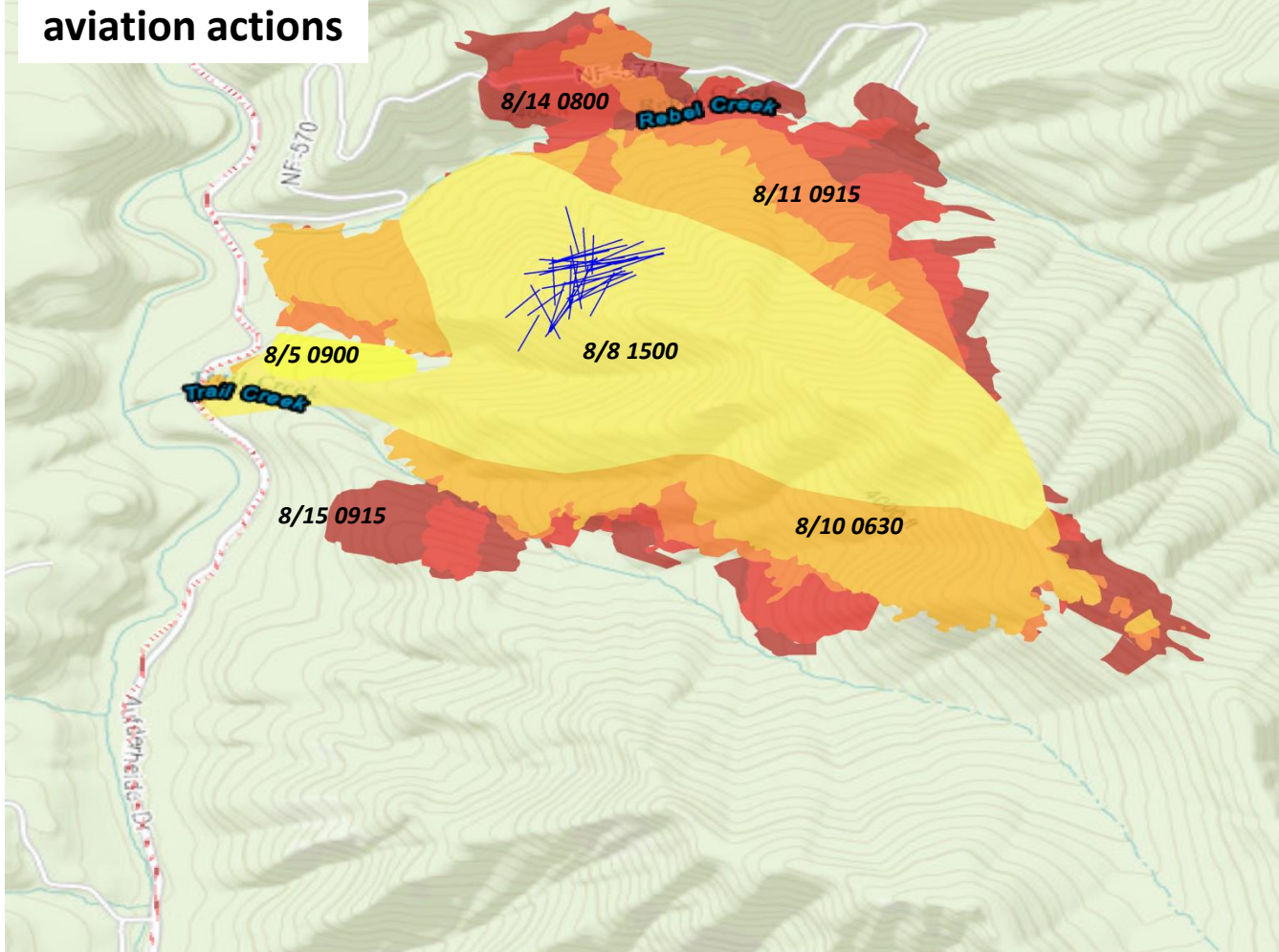
Drop lines are projected from GPS coordinates for door opening & door closing events obtained from Automated Telemetry Units (ATU) onboard USFS contract LATs, VLATs, and EU tanked Type 1 helicopters. **Data are not fully representative of all aircraft activities and only show a proportion of total incident use.**

Map for general overview purposes - contains some uncleaned drop data

DATA THROUGH 8/14



Rebel Fire progression and aviation actions

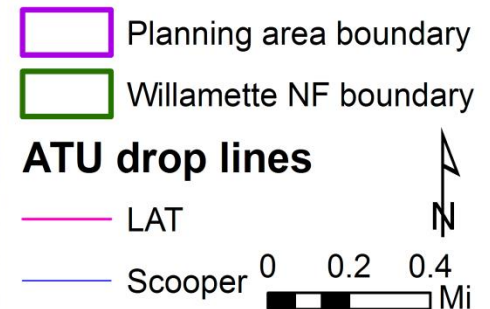


Aviation summary:

39 water drops from two scooper aircraft on 8/7

no drop data from a T2L helicopter assigned for 4 days

no other water or retardant delivery aircraft, based on ROSS records

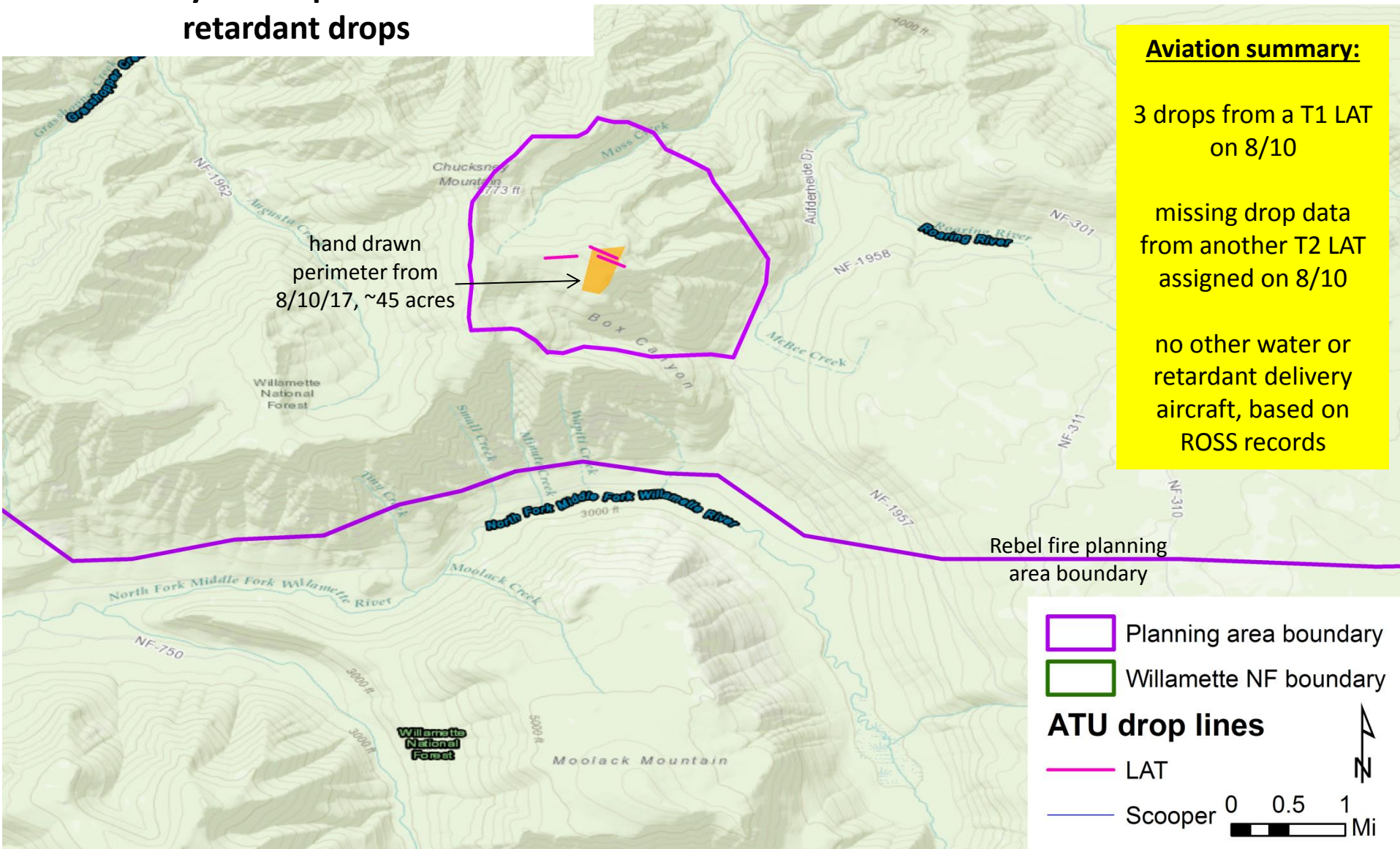


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DATA THROUGH 8/14

Box Canyon Fire perimeter and retardant drops



Aviation summary:

3 drops from a T1 LAT on 8/10

missing drop data from another T2 LAT assigned on 8/10

no other water or retardant delivery aircraft, based on ROSS records

Drop lines are projected from GPS coordinates for door opening & door closing events obtained from Automated Telemetry Units (ATU) onboard USFS contract LATs, VLATs, and EU tanked Type 1 helicopters. **Data are not fully representative of all aircraft activities and only show a proportion of total incident use.**

Map for general overview purposes - contains some uncleaned drop data

DATA THROUGH 8/14



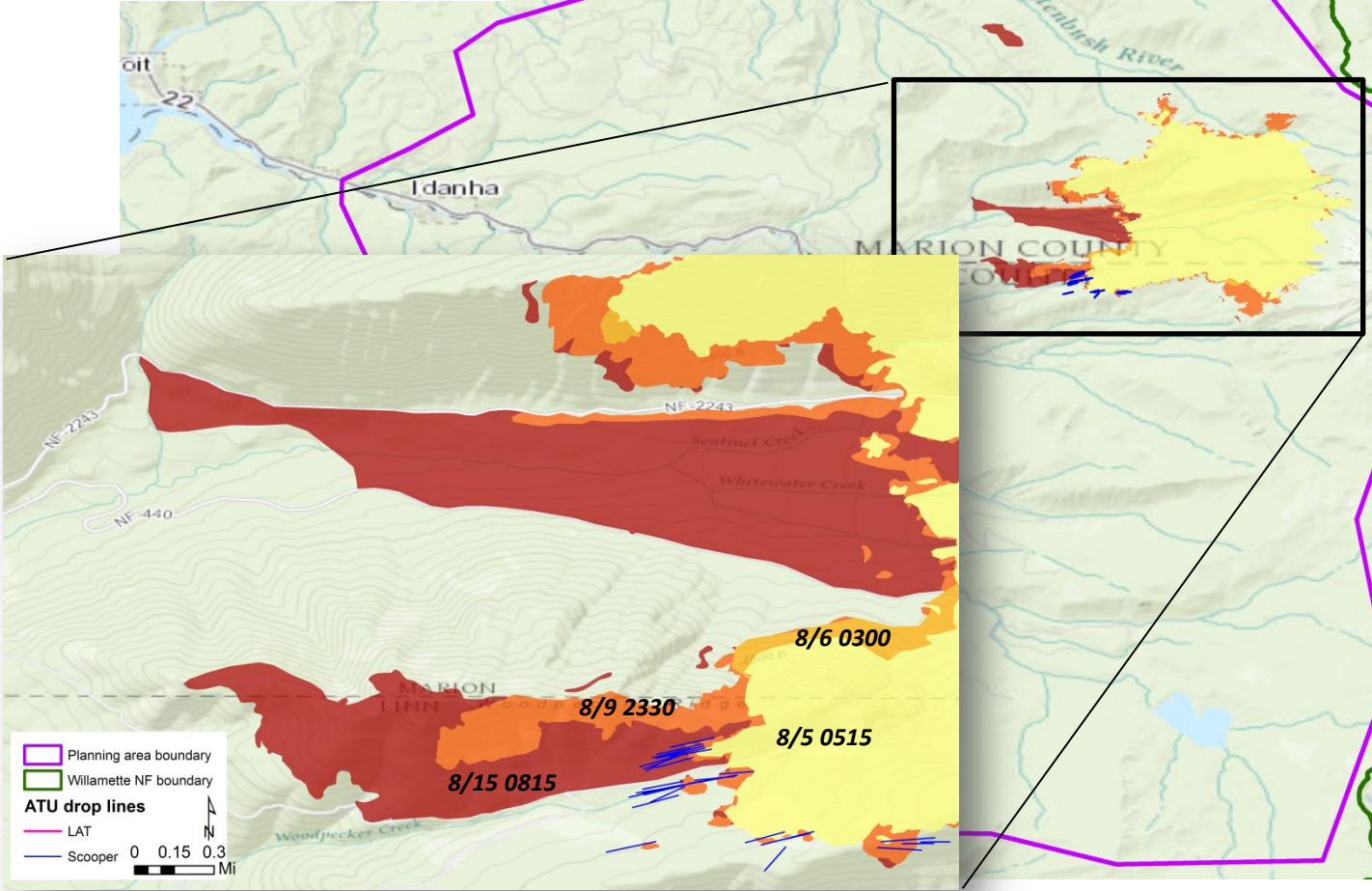
Whitewater Fire progression and aviation actions

Aviation summary:

The only drop data available is from **31 water drops** from two scooper aircraft on 8/5

Due to a lack of drop data, most retardant and water delivery aviation activities on this fire are not shown on this map, including potential drops from:

- the same scooper aircraft assigned on 8/6 and 8/7
- 66 unique mission days (unique day/aircraft combo) from 7 different T1L heavy helicopters
- 67 unique mission days from 6 different multi-use, T2 and T3 helicopters



Drop lines are projected from GPS coordinates for door opening & door closing events obtained from Automated Telemetry Units (ATU) onboard USFS contract LATs, VLATs, and EU tanked Type 1 helicopters. **Data are not fully representative of all aircraft activities and only show a proportion of total incident use.**

Map for general overview purposes - contains some uncleaned drop data

DATA THROUGH 8/14



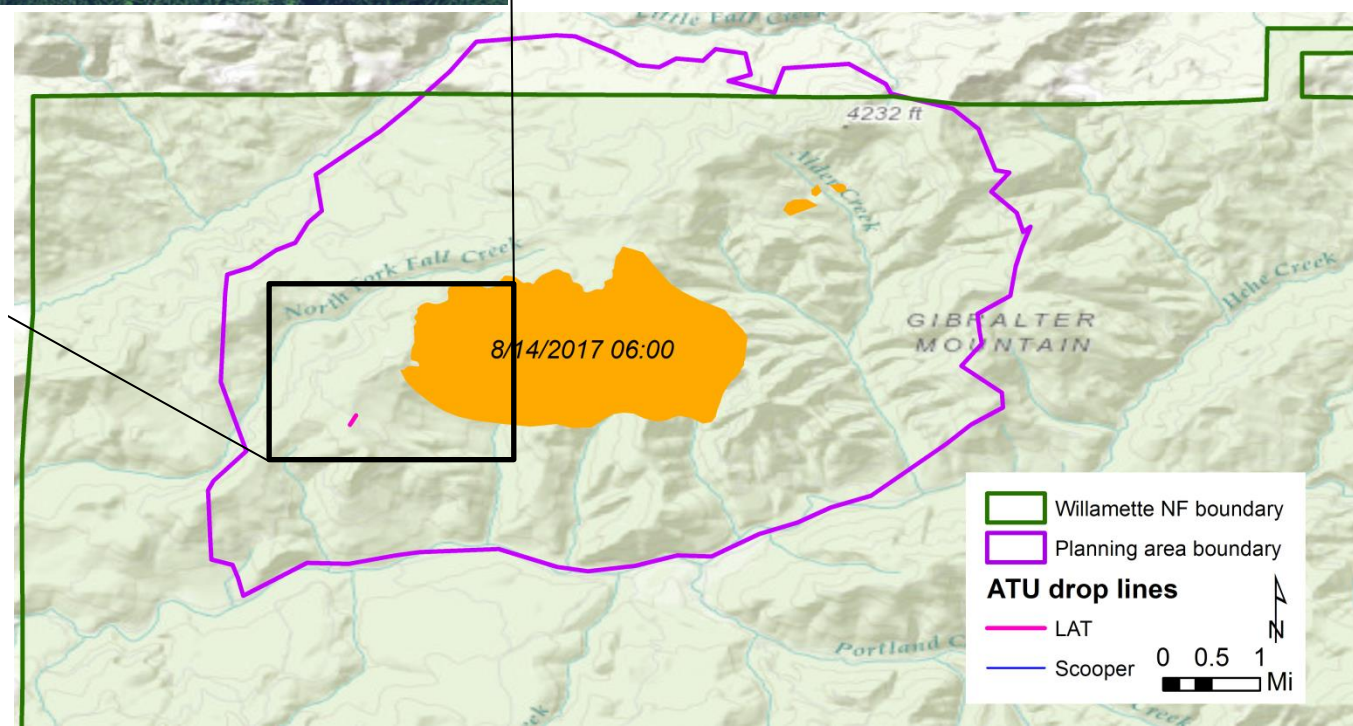
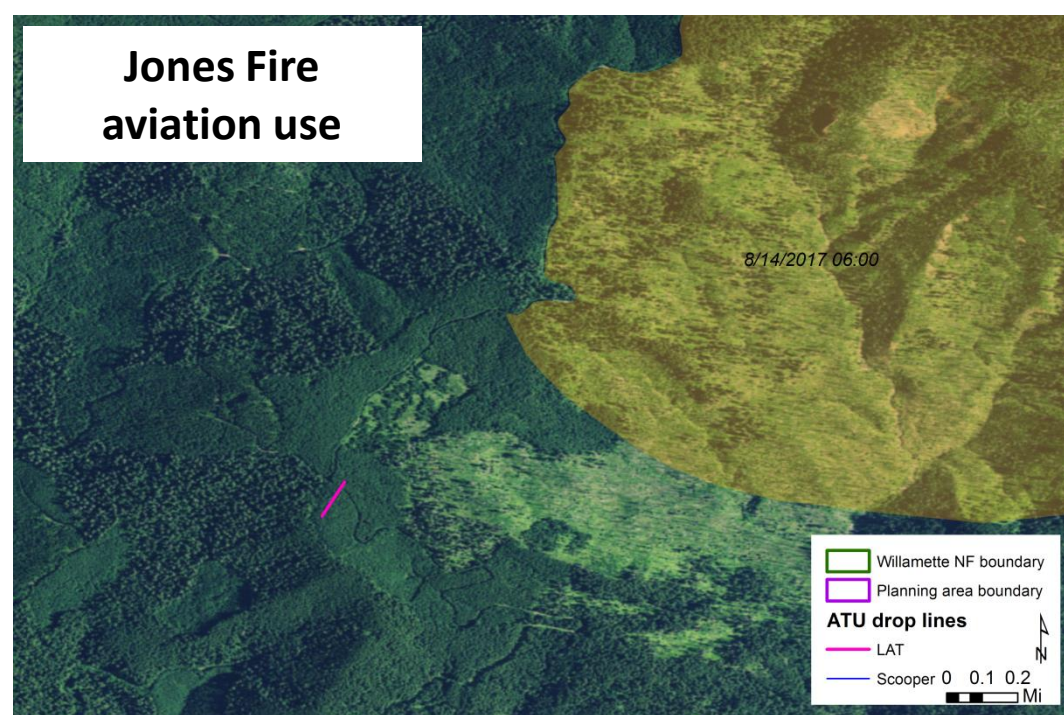
Jones Fire aviation use

DATA THROUGH 8/14

Aviation summary:

1 T1 LAT drop on 8/12

two multi-use T2 and T3 helicopters assigned, but no drop data and unknown if these are completing bucket work



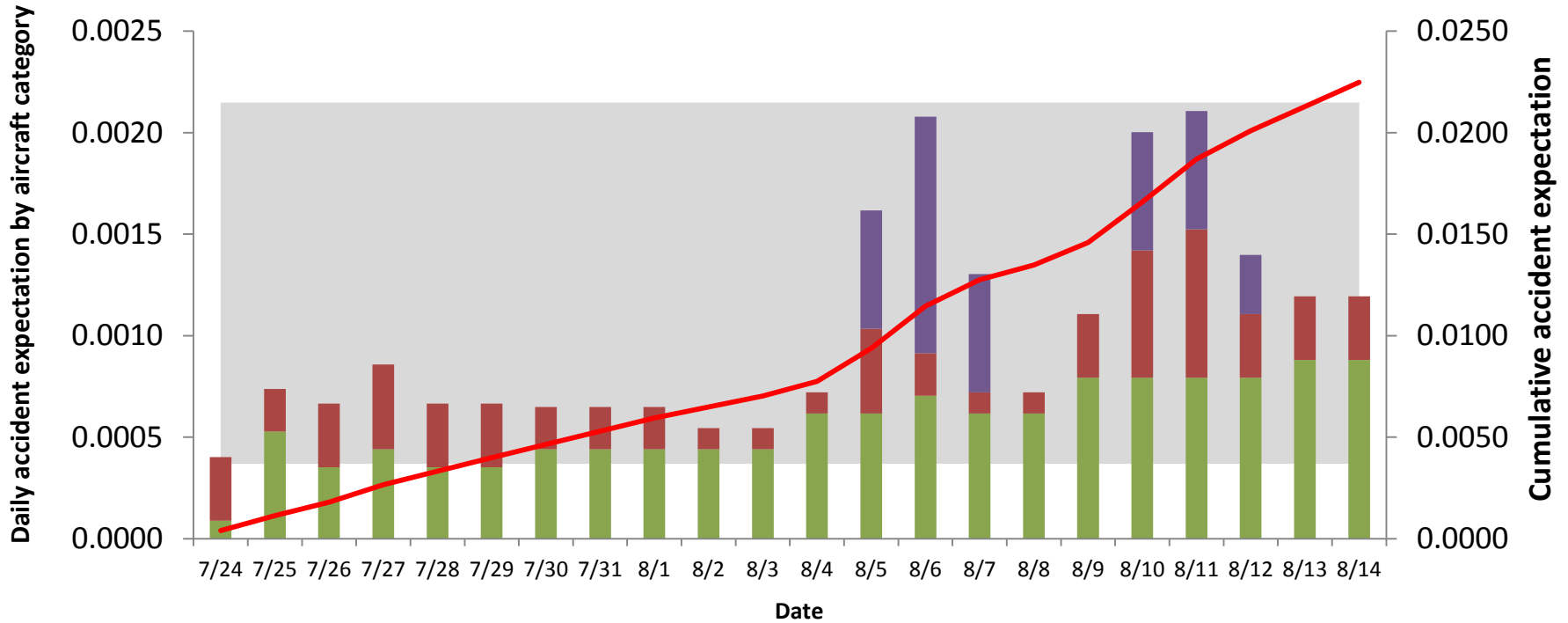
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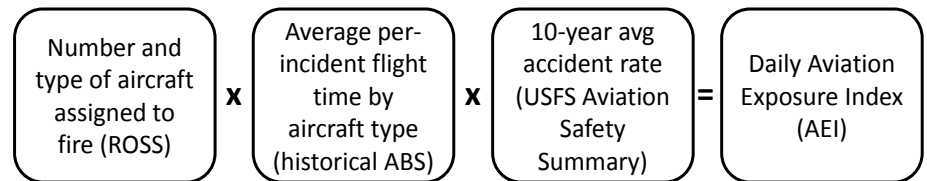
Willamette National Forest 2017 Fires

Aviation Exposure Index (AEI) aviation accident expectation

ROSS incidents include Whitewater, Rebel, Box Canyon, Jones, and 2017 WIF ABC misc.



- 25th - 75th daily percentiles
- Large airtanker
- Single engine airtanker
- Fixed wing
- Helicopter
- Cumulative accident expectation



NOTE - Accidents can occur at any end of the cumulative exposure spectrum; this index is not a predictor for accident occurrence.

ATU - additional telemetry unit

- Sensors that log door events on airtankers and tanked helicopters
- GPS points w/ door open and close
 - USFS contract LATs, VLAT, scoopers, tanked exclusive use T1 helicopters
 - No data from SEATs, non USFS LATs, all other helicopters
- Near real-time geospatial product
- Not widely available or used

