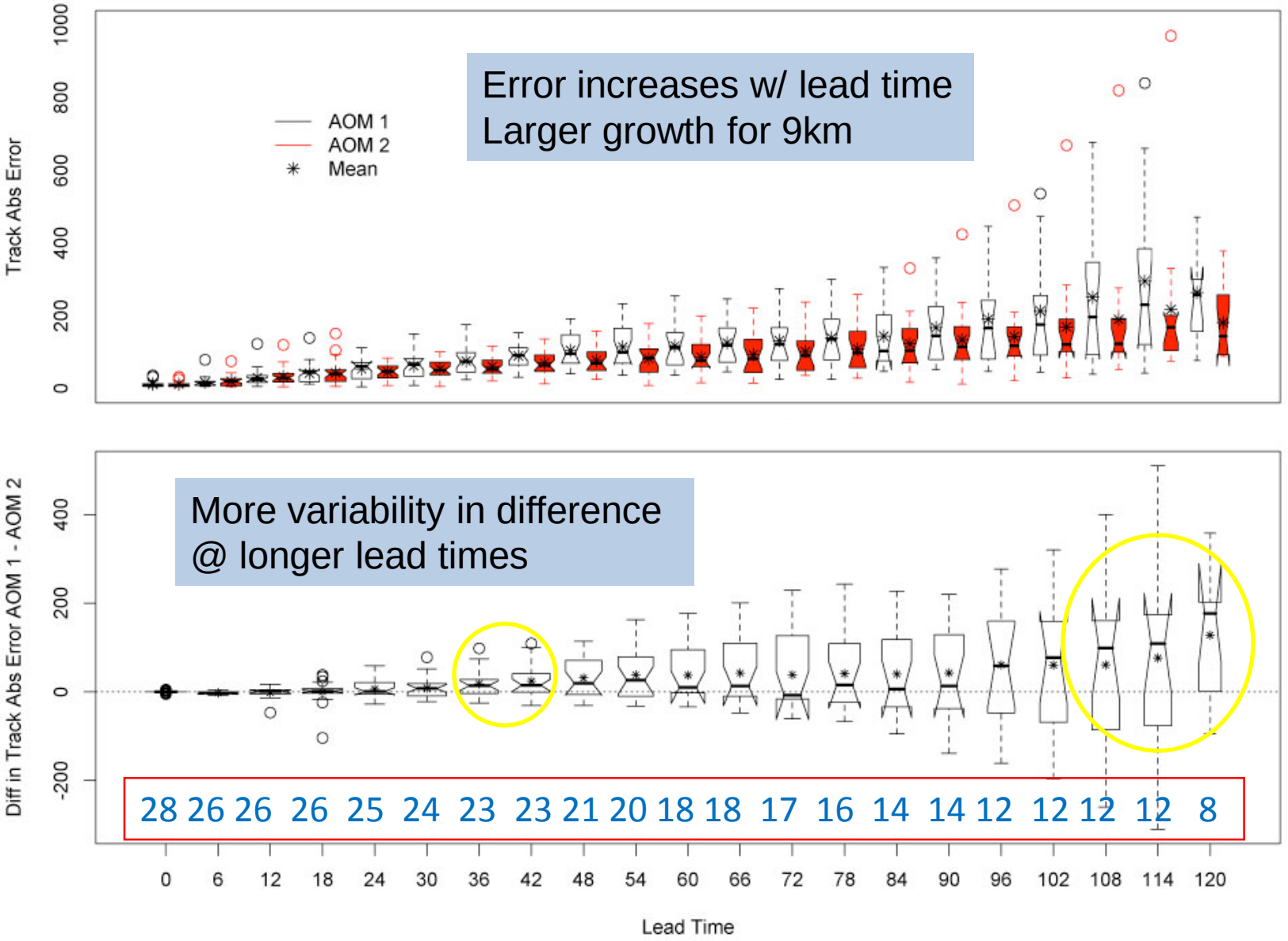
# Verification Statistics: AOML and MMM

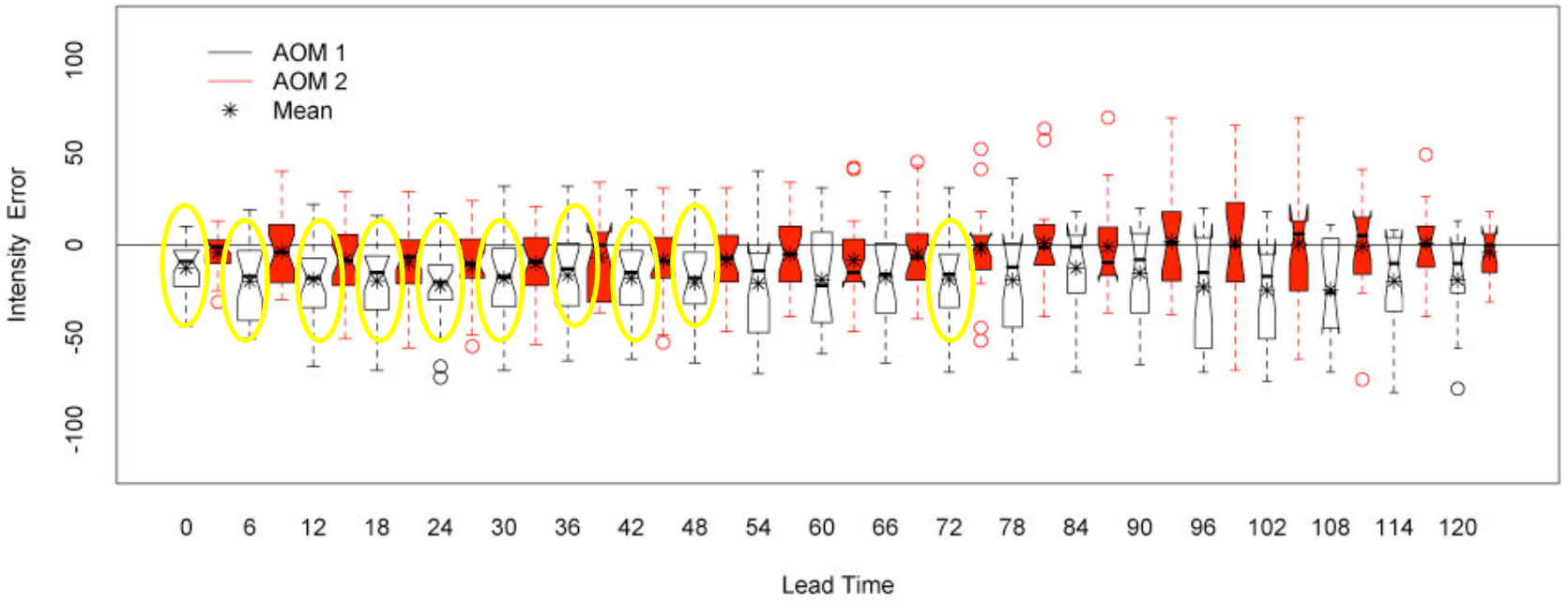
# Overview of AOML Cases

- Resolutions: 9 km vs 3 km
- Total of 28 cases from 5 storms
- Track length over 20% shorter than Best Track for 35% of these cases

# Track Absolute Error - AOML

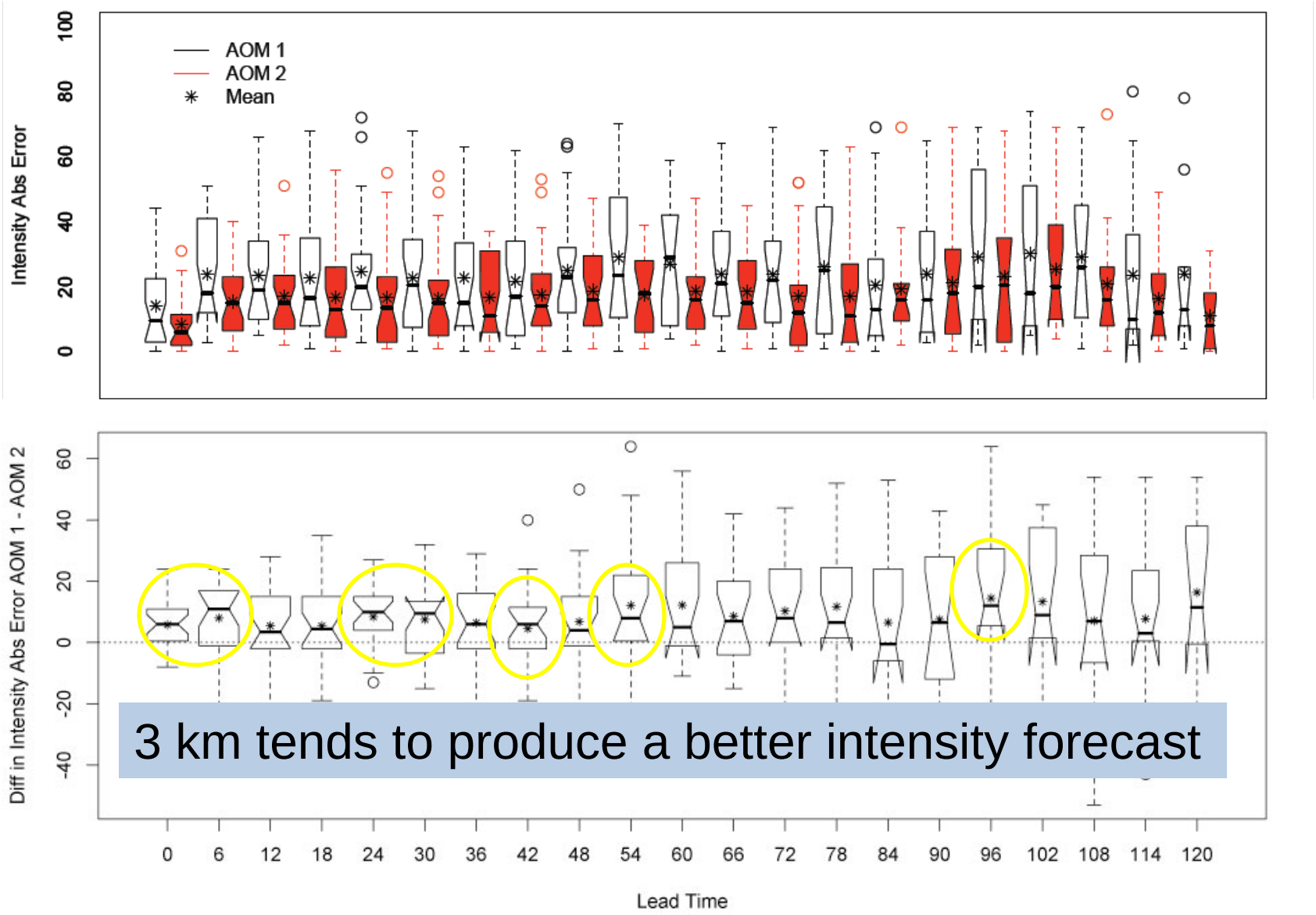


# Intensity Error - AOML

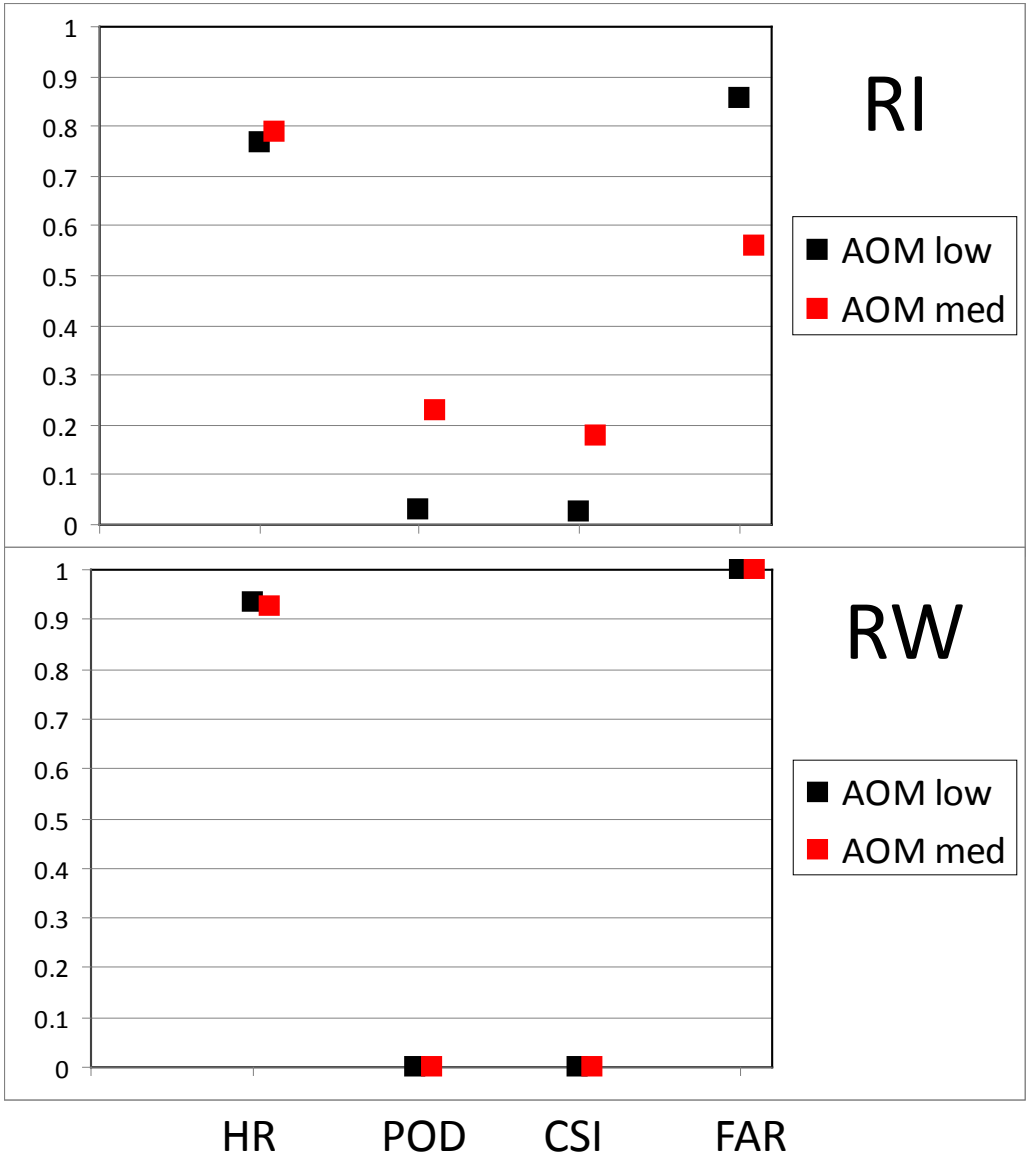



9km tends to under predict intensity
3 km exhibits less systematic error

# Intensity Absolute Error - AOML



# RI/RW Verification for AOML




| | | Observed | |
|---|---|---|---|
| | | Yes | No |
| AOM1 | Yes | 2 | 12 |
| AOM1 | No | 64 | 251 |
| AOM2 | Yes | 15 | 19 |
| AOM2 | No | 51 | 244 |

| | | Observed | |
|---|---|---|---|
| | | Yes | No |
| AOM1 | Yes | 0 | 2 |
| AOM1 | No | 20 | 307 |
| AOM2 | Yes | 0 | 5 |
| AOM2 | No | 20 | 304 |

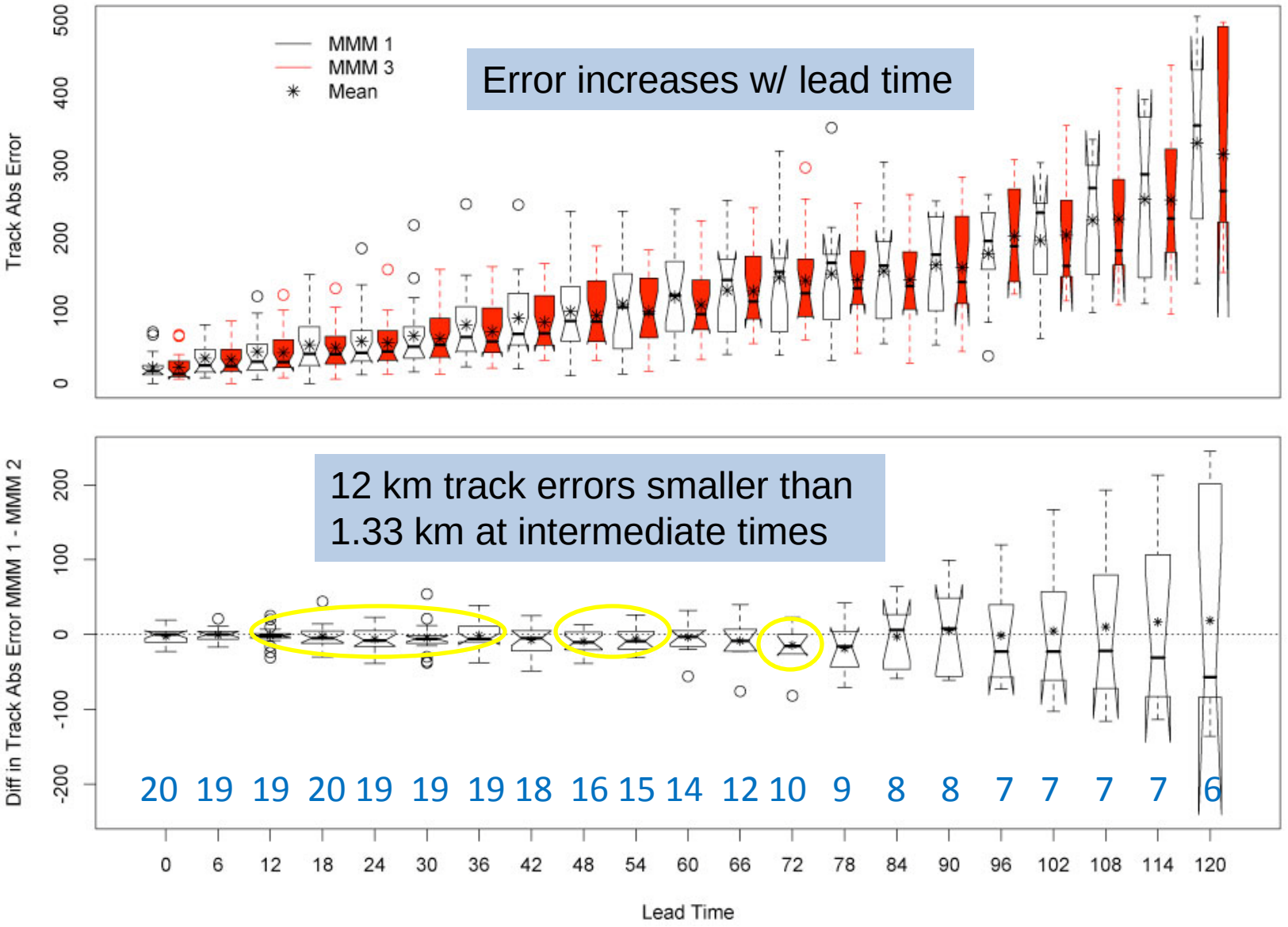
# Summary for AOML

- Track exhibits small improvements with increased resolution for longer lead times
- 3 km exhibits less systematic under prediction of intensity than 9 km
- RI forecast improves with higher resolution
- Resolution has no impact on RW forecast

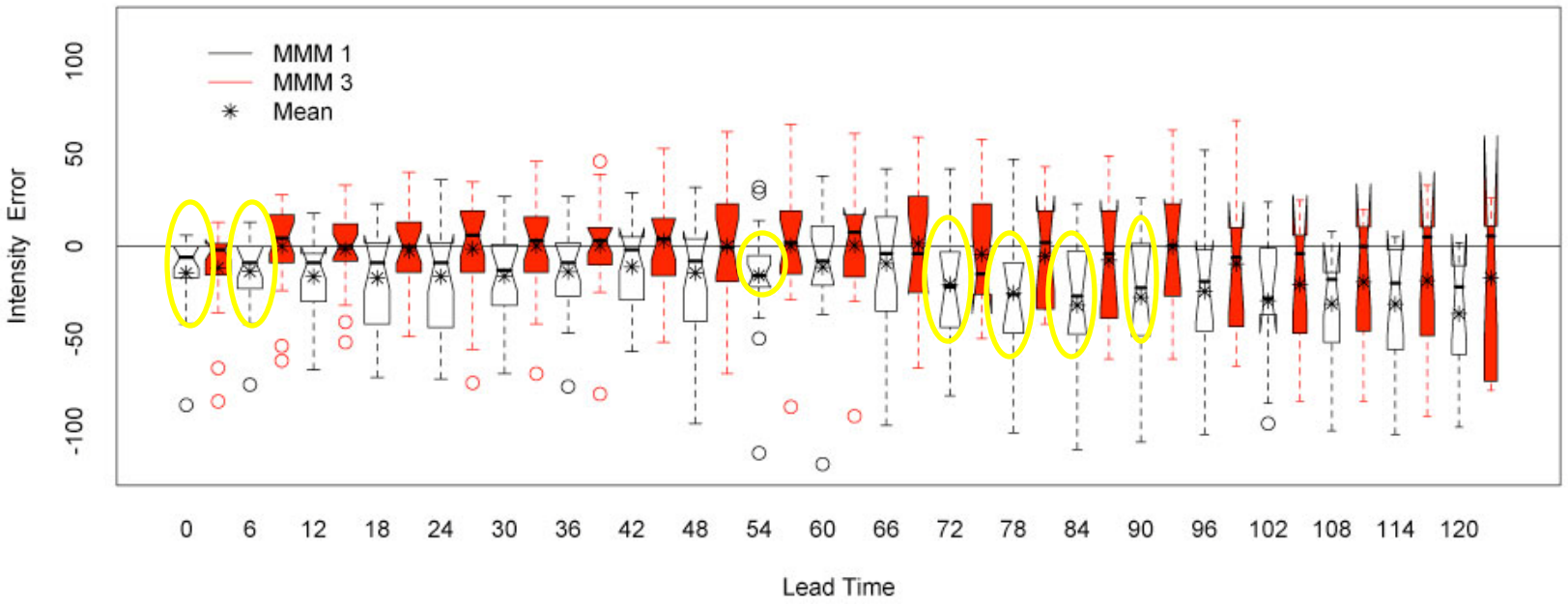
# Overview of MMM Cases

- Resolutions: 12 km vs 1.33 km
- Total of 20 cases from 6 storms
- Track length over 20% shorter than Best Track for 35% of these cases
- Four of the submitted Wilma cases were not included in analysis because tracker erroneously placed fix on boundary of the 1.33 km nest

# Track Absolute Error - MMM

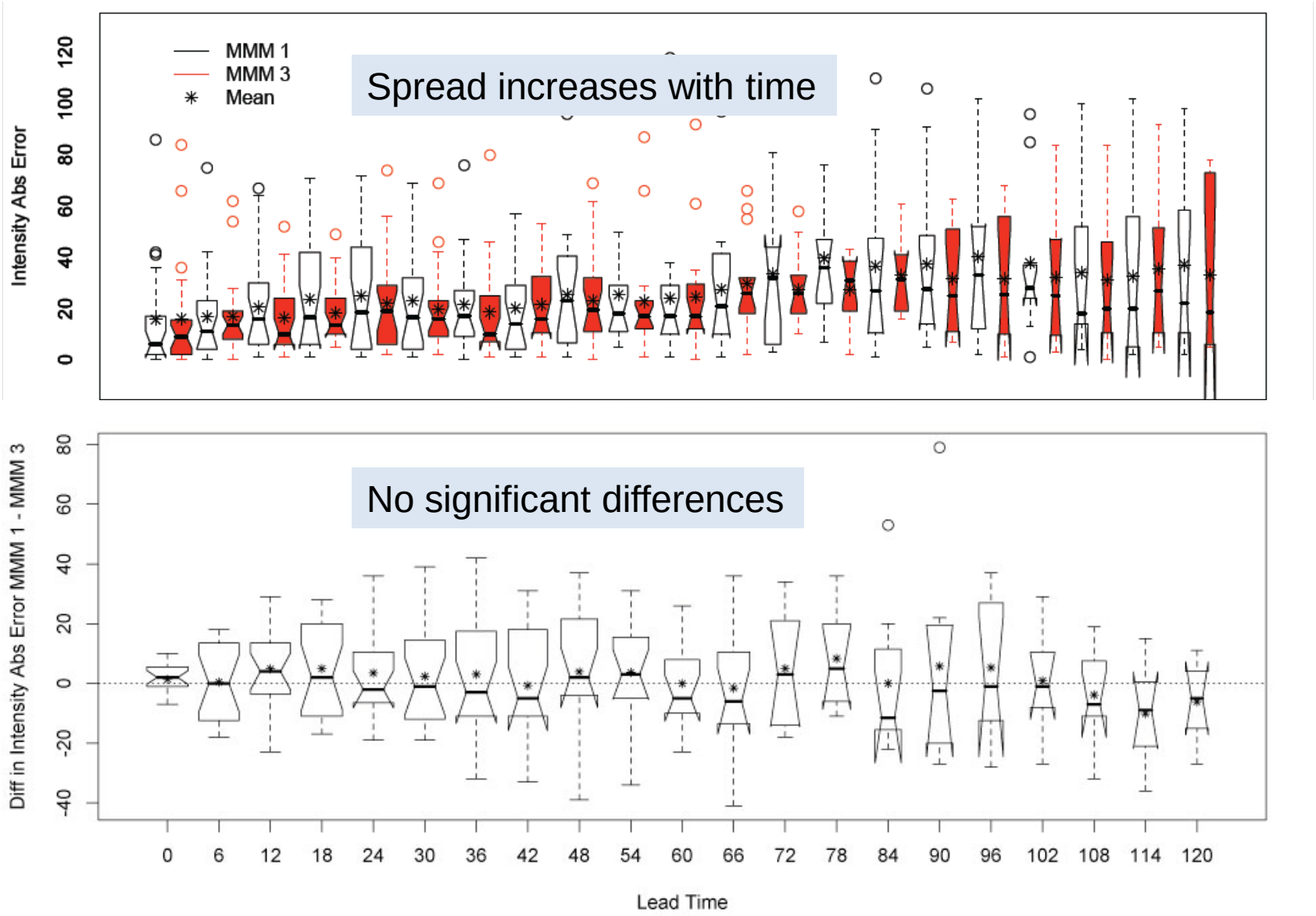


# Intensity Error - MMM

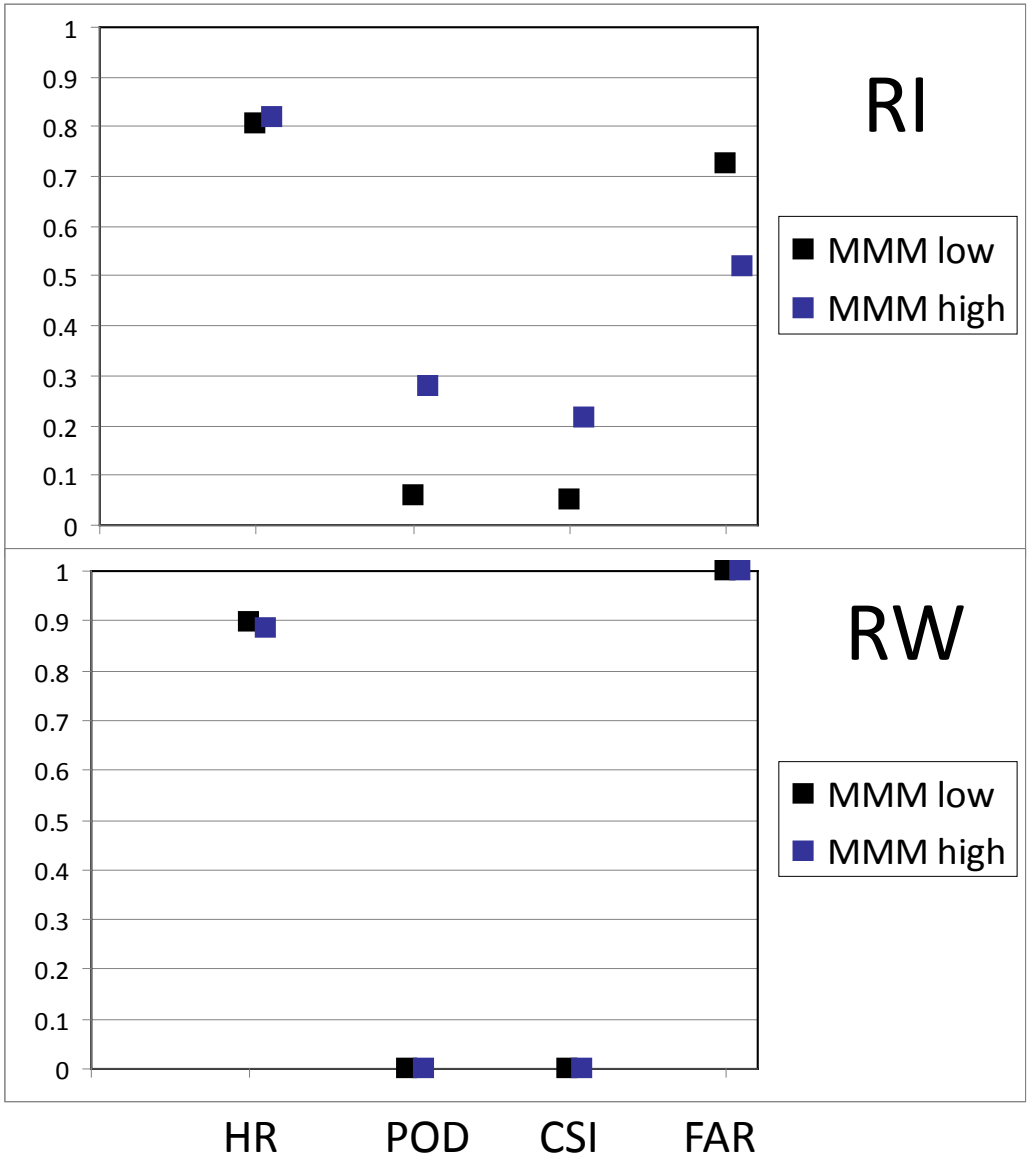



12 km exhibits more systematic under prediction than 1.33 km

# Intensity Absolute Error - MMM



# RI/RW Verification - MMM




| | | Observed | |
|---|---|---|---|
| | | Yes | No |
| MMM1 | Yes | 3 | 8 |
| MMM1 | No | 47 | 224 |
| MMM3 | Yes | 14 | 15 |
| MMM3 | No | 36 | 217 |

| | | Observed | |
|---|---|---|---|
| | | Yes | No |
| MMM1 | Yes | 0 | 1 |
| MMM1 | No | 28 | 253 |
| MMM3 | Yes | 0 | 5 |
| MMM3 | No | 28 | 249 |

# Summary for MMM

- Slight degradation in track with increased resolution
- 12 km exhibits more systematic under prediction of intensity than 1.33 km
- No statistically significant differences in intensity absolute errors
- RI forecast improves with higher resolution
- Resolution has no impact on RW forecast