



# **Friends and Partners in Aviation Weather**

## **October 24, 2019**



### **Terminal Weather**

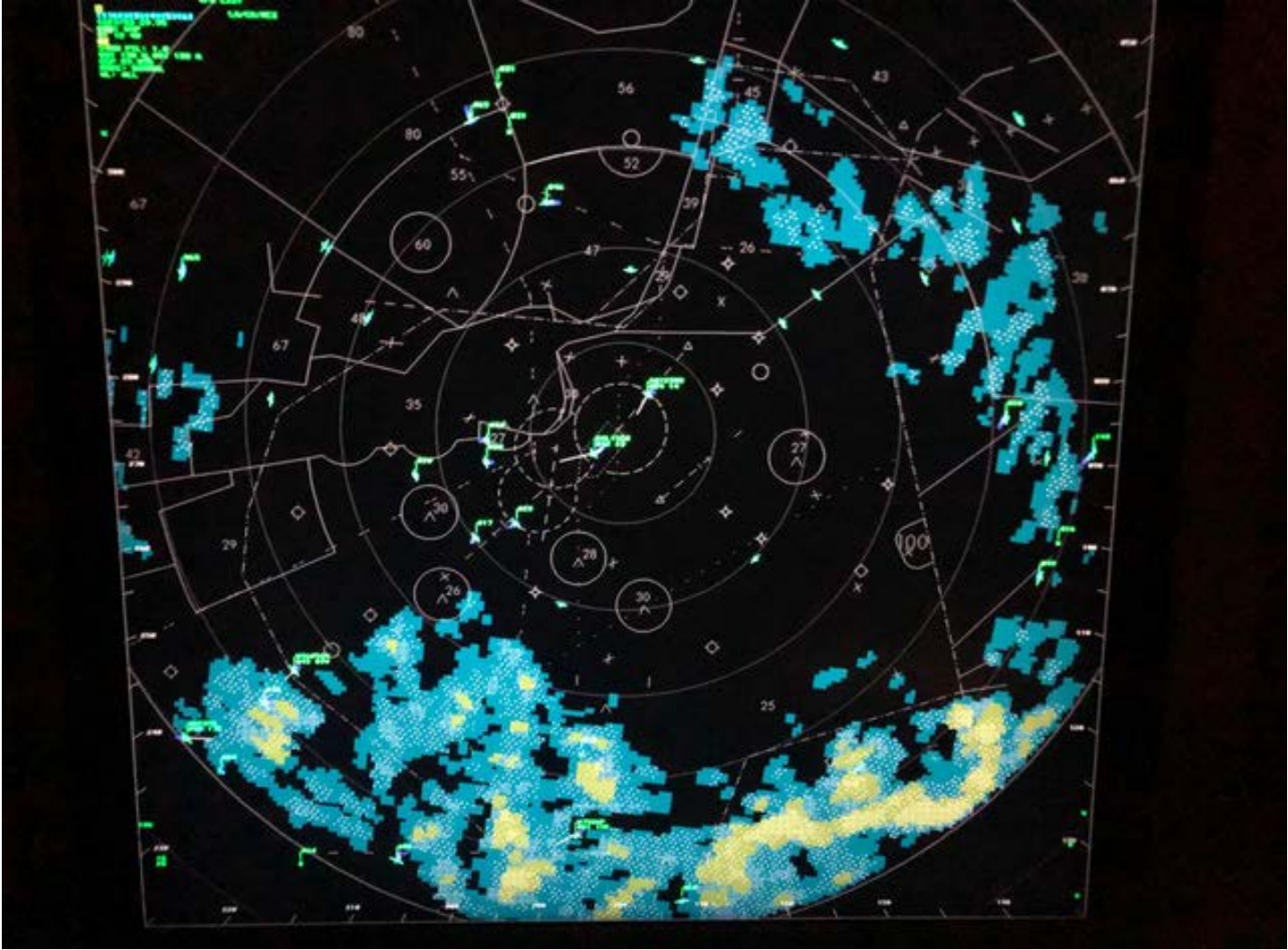
- **Airport Surveillance Radar (ASR)**
- **6 Levels of weather**



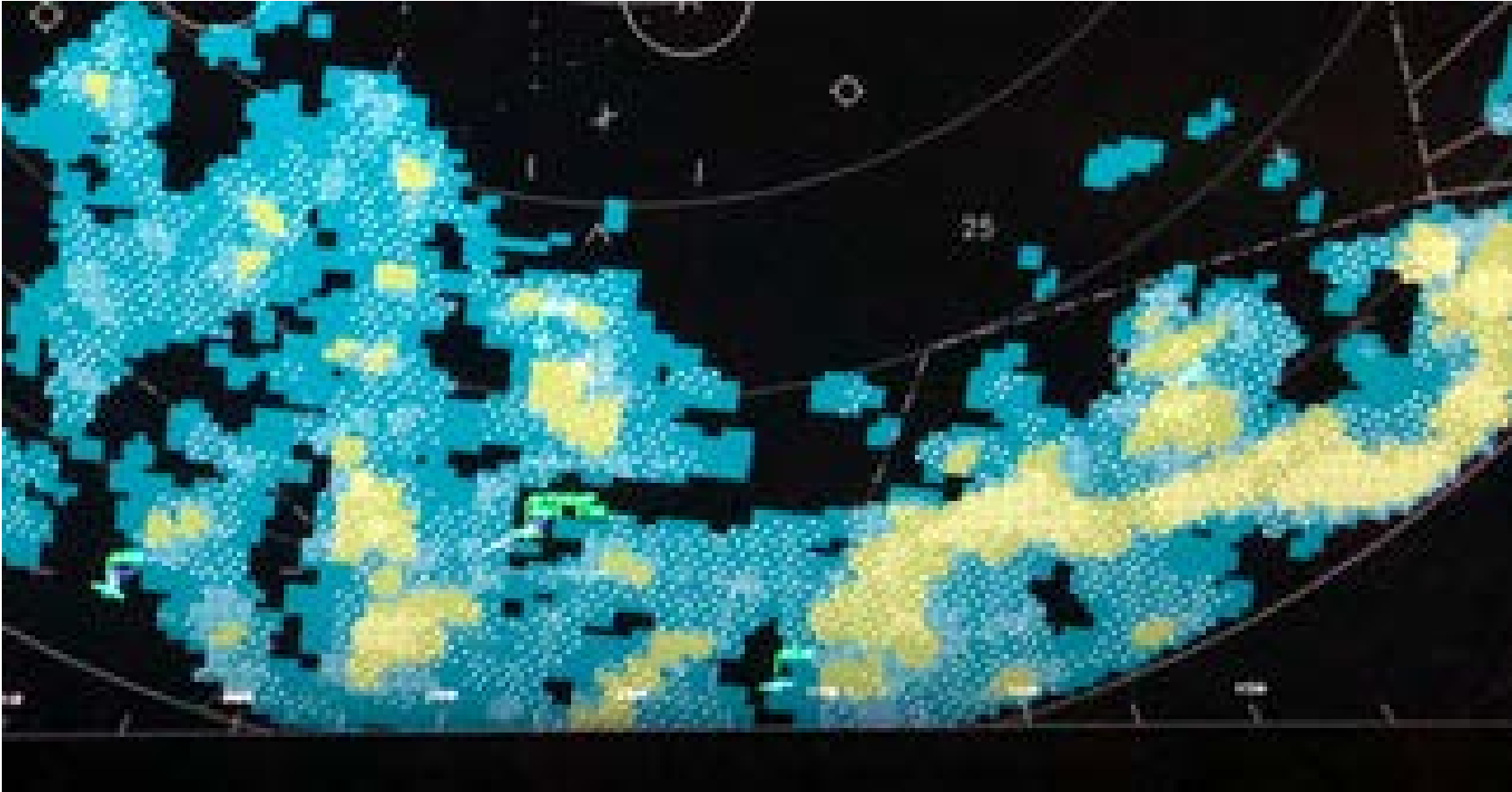
### **ARTCC Weather**

- **NEXRAD radar**
- **3 Levels (Moderate, Heavy Extreme)**

# Terminal Weather (STARS)



# Terminal Weather (STARS)



# ARTCC Weather (ERAM)



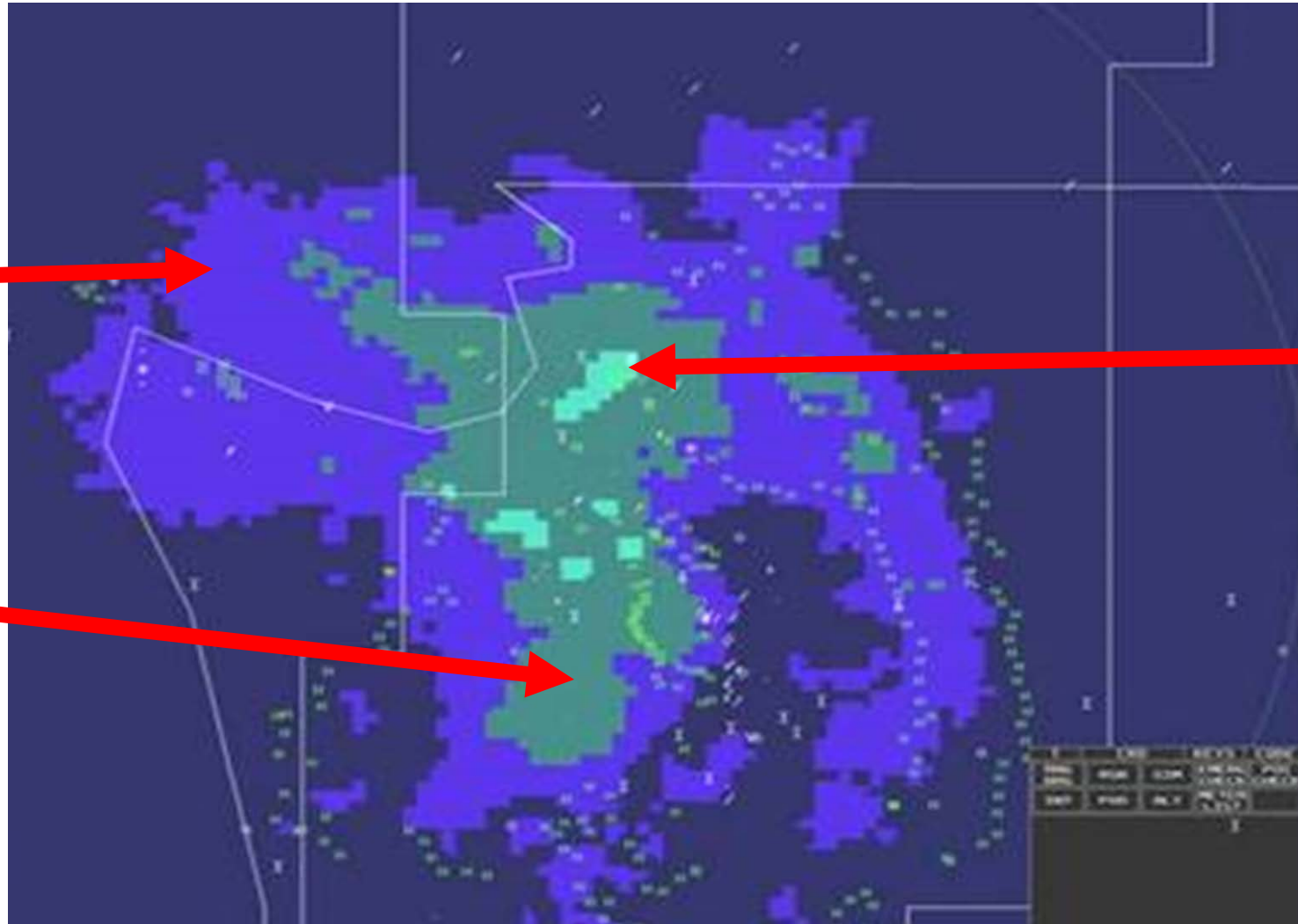
Moderate



Extreme



Heavy





## Air Traffic Radar Limitations

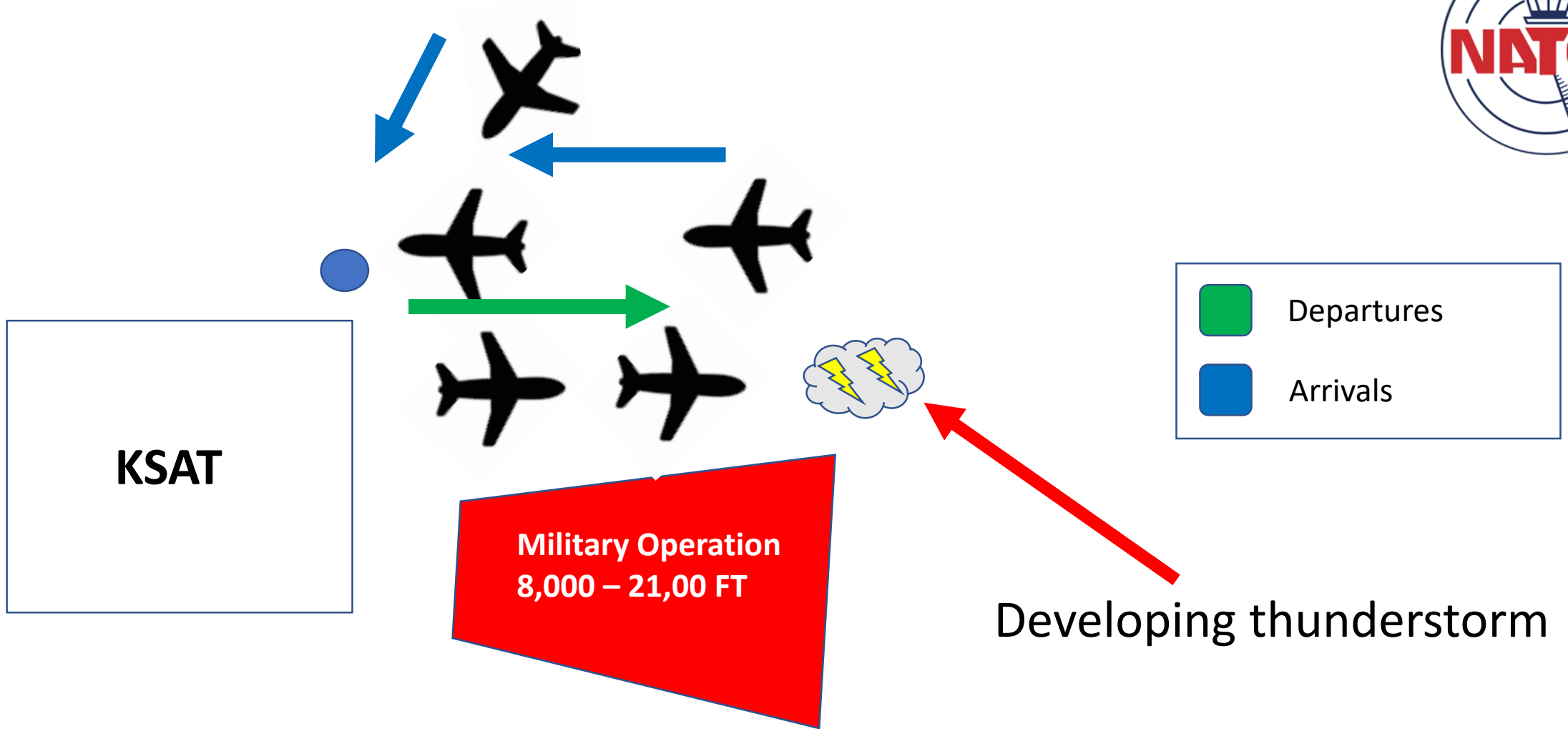
- **Center and Terminal controllers are looking at different weather**
- **ASR radars primary purpose is for surveillance of air traffic**
- **Depending on the facility, there are several different ASR radars. Some ASR radars do a better job of depicting weather than others.**
- **Rapidly developing thunderstorms may not be depicted.**
- **Radar on the glass does not depict movement, rather only shows the current radar image.**
- **Overhang is normally not shown but pilots often request to deviate around it.**

# Controller Complexities



- **Tight arrival and departure corridors around terminal facilities.**
- **Time required to recall military airspace.**
- **Pilots can't see the complexities of how air traffic controllers are sequencing/managing their airspace.**
- **Pilots receive a reroute to another corner post and become low on fuel.**
- **Compression when dealing with differing winds**

# Departure Weather Scenario



Developing thunderstorm



