

Kevin Morris

FAA, Aviation Safety Inspector







Types E2, E3, and E4

Aeronautical Chart Depictions

Authorization Requirements





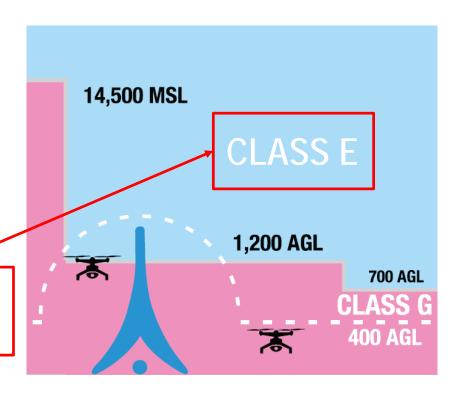






- Generally begins where Class Golf ends
 - Typically 700ft or 1,200ft Above Ground Level
 - Unless associated with an airport surface area

 ATC authorization not required for Part 107 operations













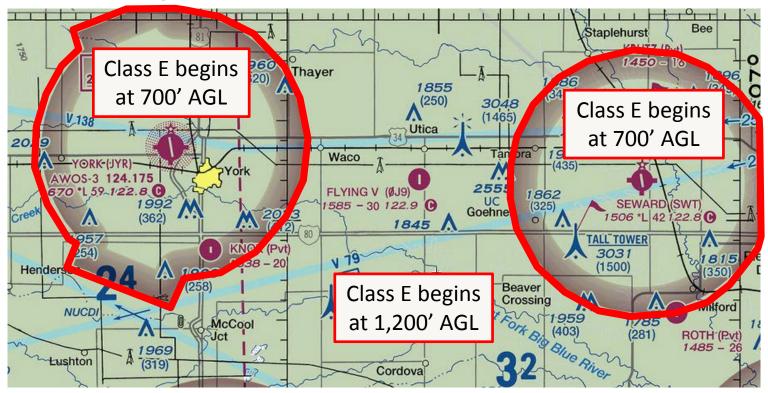






























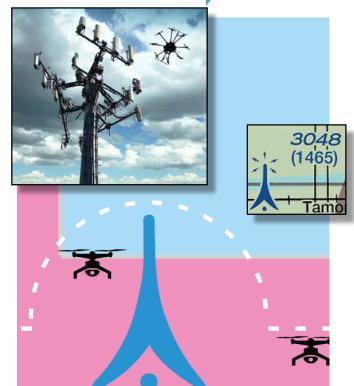
Tower Inspections:

- §107.51(b)
 - Limits maximum altitude to 400ft Above Ground Level

Exceptions:

- Is flown within a 400-foot radius of a structure; and
- Does not fly higher than 400 feet above the structure's immediate uppermost limit

























No person may operate a small unmanned aircraft...within the lateral boundaries of the surface area of Class E airspace designated for an airport unless that person has prior authorization from Air Traffic Control (ATC)

(Small UAS Operating Rules) 14 CFR §107.41





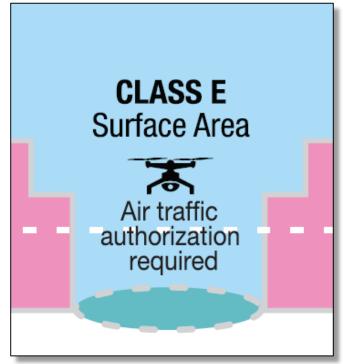




Starts at ground level:

- Type E4
 - Extension to Class D or E surface area
- Type E3
 - Extension to a Class C surface area
- Type E2
 - Surface area designated for an airport
 - AUTHORIZATION NEEDED

















































SURFACE ECHO - E4

No ATC Authorization



SURFACE ECHO - E3

No ATC Authorization



SURFACE ECHO - E2

ATC Authorization Needed

Three different types of surface Class E airspace extensions











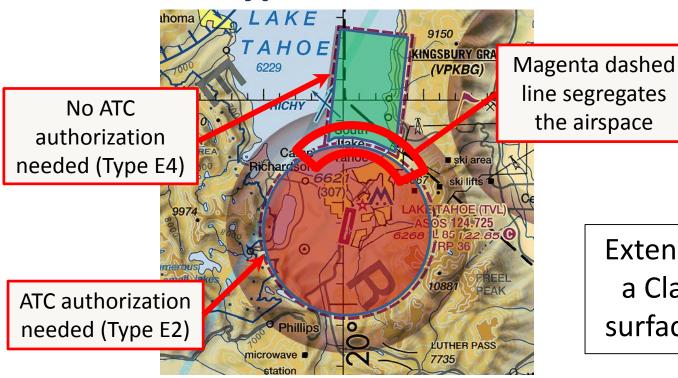












Extension to a Class E2 surface area











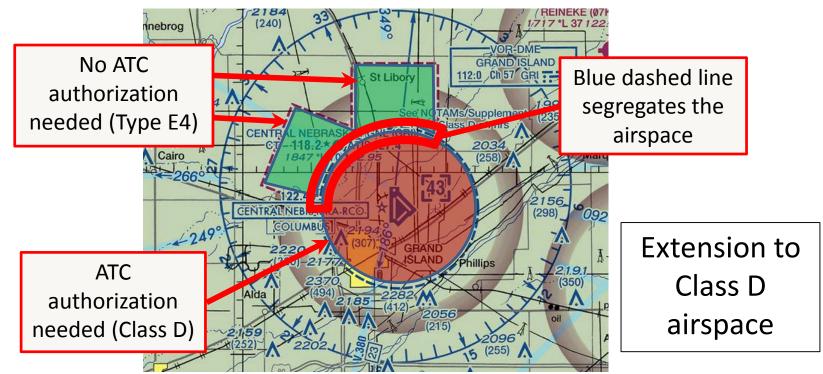






















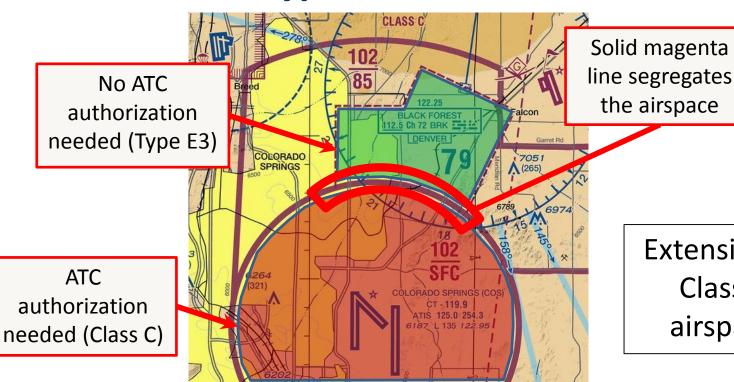












Extension to Class C airspace











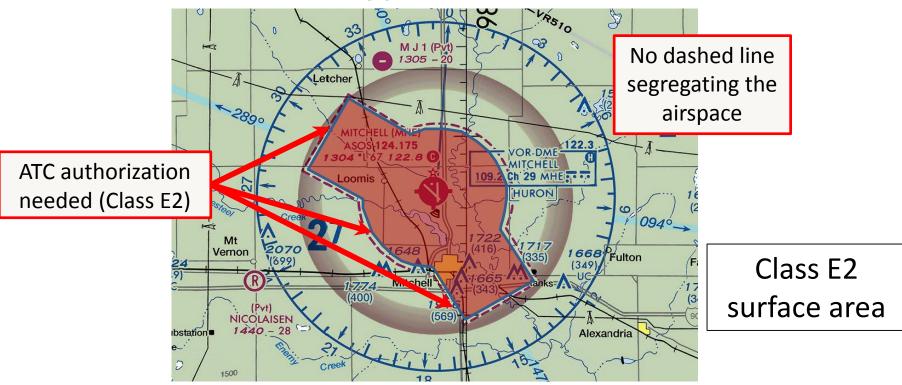
























#UAS2019





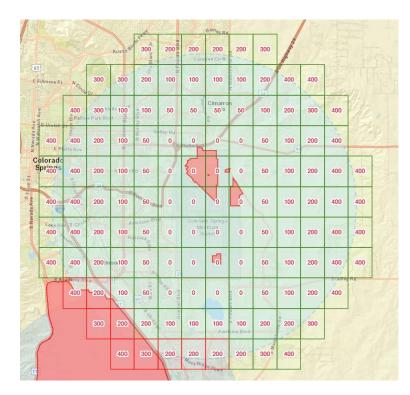


UAS Facility Map

 Identifies areas where ATC authorization is required

- Controlled airspace:
 - Class B
 - Class C
 - Class D
 - Surface Class Echo Type E2

















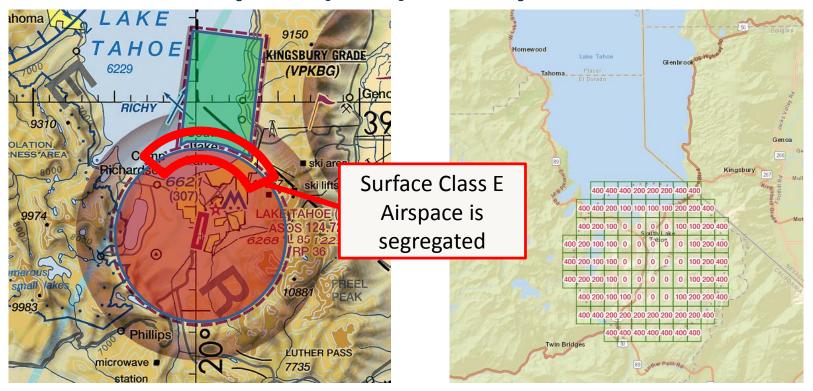






Lake Tahoe Airport (TVL) Example























Questions?



