

Airport ATC Communications: Procedures and Phraseology

Nolan, Chap 4

Communication!

- Ability to sequence and separate aircraft is achieved by *communication* between pilot and ATC (ATC and ATC)
 - Written and Verbal
- Miss-communication could lead to accident
- English is International Standard
 - International Civil Aviation Organization (ICAO)

Radio Communication

- Simplex (two-way communication on one frequency)
- Radio Frequencies assigned International agreements
 - High Frequency
 - » Long-range communication (follow curvature of earth)
 - » Used by Oceanic ARTCCs
 - Very High Frequency
 - » Civil aircraft
 - Ultra High Frequency
 - » Military aircraft

Assigning Frequencies

- Federal Communications Commission (FCC) assigns frequencies in U.S. (VHF)
- See table pg 172

Standard Phraseology for Verbal Communications

- ICAO and FAA standards
- Message format
 1. Identification of aircraft/controller being contacted
 - » United seven-one-two-four
 - » Cessna niner-eight-five-five-six
 2. Identification of controller/aircraft initiating comm.
 - Tower
 3. Content of message
 - See next page
 4. Termination

Clearances

Clearance

- United Seven-Twelve
Runway two-four cleared for takeoff
- Beech eight-delta-mike, after departure, turn left, and proceed direct to the Boiler VOR, runway one zero, cleared for takeoff

Instructions

- United Flight Number 712, takeoff using runway 24
- ... takeoff from runway 10, turn left after takeoff, and fly direct to the BOILER VOR (pick a radial and fly down the radial)

Homework (1/3)

1. Explain each of the following Departure Clearances
 1. Delta one-niner, after departure turn right heading one-two-zero, runway three cleared for takeoff
 2. United one-two-seven, turn right heading three-five-zero
 3. American five-three-six, fly heading one-one-zero
 4. United six-seven-eleven, turn right heading one-five-zero, join Victor ninety-seven
 5. King Air seven-seven, fly runway heading, intercept radial three-two-zero Boler VOR

Homework (2/3)

1. Explain each of the following Arrival Clearances
 1. Queen Air seven-tango, cleared for approach
 2. King Air pappu-uniform, cleared for ILS runway one-zero approach
 3. America nine-twenty-one, cleared to land runway niner

Homework (3/3)

2 Explain each of the Enroute and Arrival Clearances

1. Sport zero-two-romeo, maintain three thousand
2. Eastern six-fifty-seven, climb and maintain niner thousand
3. Clipper six ninety, descend and maintain flightlevel-three five-zero
4. Beech-eight-delta-mike, cleared to Chicago Midway airport via direct KNOX, then as filed
5. United seven-seven, unable routing requested, cleared to Chicago O'Hare Airport, via direct Boiler, victor-seven Chicago Heights, direct
6. King Air four-pappa-alpha, report crossing Danville one-two-seven radial, three-six mile fix
7. United seven-seven, hold northwest of the Boiler VOR on the three-two-three radial, expect further clearance at one-two—five zulu