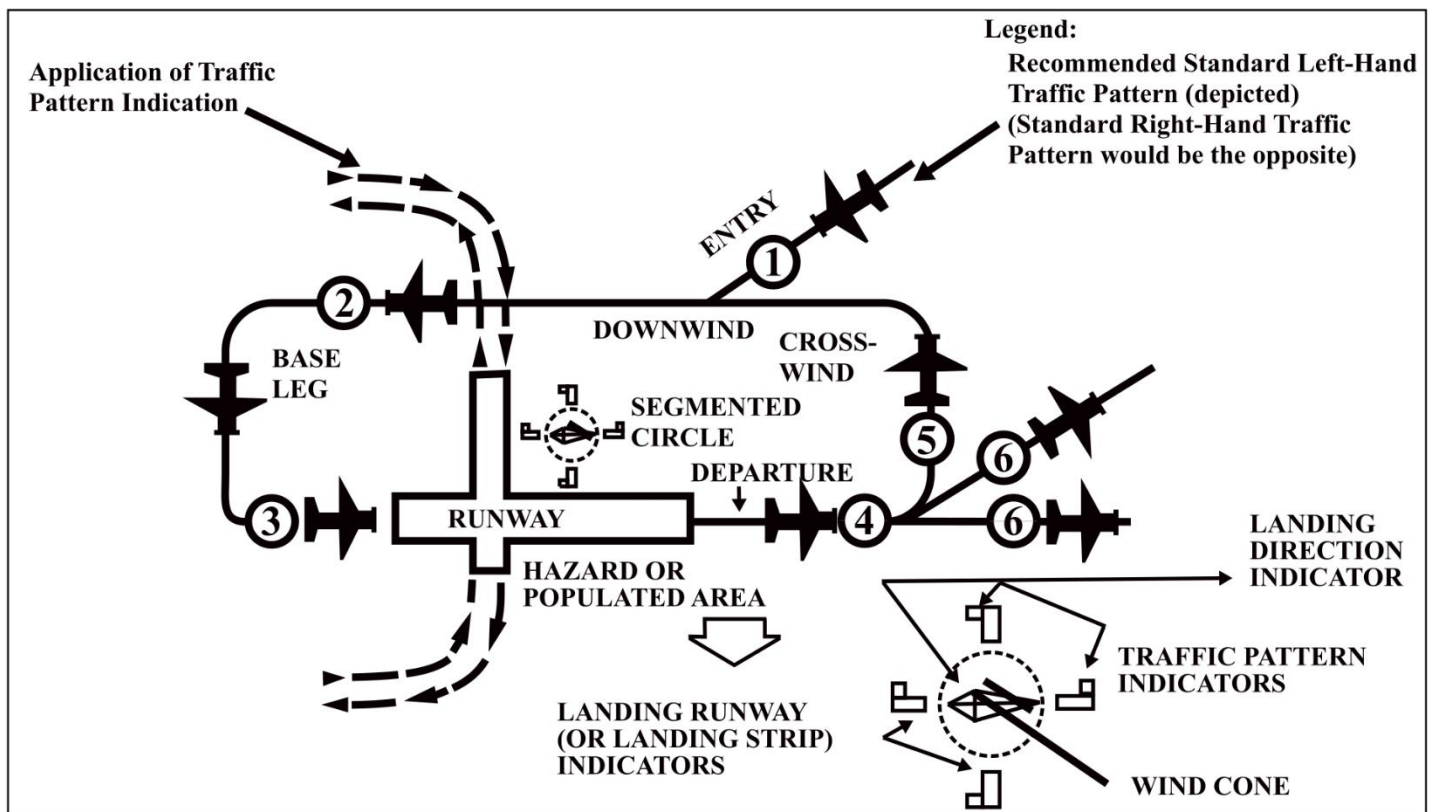# Airport Operations

Types of Airports
- Towered (500 + in the US)
  - ATC (air traffic control) responsible for traffic flow
  - Required communications with ATC to fly there
- Non-towered (20,000 + in US
  - No one controlling traffic
  - Radio communication is not required
  - Use CTAF or UNICOM frequencies

Runways
- Are numbered 1-36. They correspond to the direction of travel, just add a 0 to it. For example, Runway 9 corresponds to a runway point of 90 degrees with respect to a compass which is East. 27 means 270 degrees which is West. The other end of the runway will have a different number that is 180 degrees opposite on the compass. So, runway 1 will be 19 on the other side.
- The readings are based on magnetic North

Traffic Pattern

Can fly near airports if not controlled airspace but cannot interfere with airport operations.

Airport Beacons
- Civilian airport: 1 White – 1 Green
- Military airport: 2 White – 1 Green
- Water airport: 1 White – 1 Yellow

Right of Way
- Yield right of way to any other aircraft (balloons, helicopters, gliders, etc.)
- If flying a fixed wing and approaching another fixed wing, each should yield to the right.
- See and Avoid: Can not use binoculars or FPV camera. Must use unaided eyesight. Can use binoculars to help with situational awareness.

Scanning for traffic
- Both PIC and VO should scan the scan from left to right in short intervals of no more than 10 degrees.

Chart Supplements
- Find them using skyvector.com
  - Click on the airport icon to see this information
- Most info is for manned aircraft operations but some can be used by UAS operators.
  - Communication sections give radio frequencies
  - Airport info
  - Glider and parachute info
  - Traffic patterns
  - Overall airport info

CASPER

CASPER/NATRONA CO INTL (CPR)(KCPR)   7 NW   UTC–7(–6DT)   N42°54.35´ W106°27.82´   CHEYENNE
5344   B   LRA   Class I, ARFF Index B   NOTAM FILE CPR   H–3F, 5A, L–11E, 12F
RWY 03–21: H10165X150 (ASPH–GRVD)   S–130, D–170, 2D–270   IAP, AD
   PCN 46 F/B/X/T   HIRL
   RWY 03: MALSR. PAPI(P4R)—GA 3.0° TCH 50´. RVR–T
   RWY 21: REIL. VASI(V4L)—GA 3.0° TCH 56´. RVR–R
RWY 08–26: H8679X150 (ASPH–GRVD)   S–85, D–140, 2D–260
   PCN 44 F/B/X/T   HIRL
   RWY 08: MALSR. VASI(V4R)—GA 3.0° TCH 103´. RVR–T
   RWY 26: REIL. PAPI(P4R)—GA 3.0° TCH 50´. RVR–R 0.4% up.
RUNWAY DECLARED DISTANCE INFORMATION
   RWY 03: TORA–10165 TODA–10165 ASDA–10165 LDA–10165
   RWY 08: TORA–8679   TODA–8679   ASDA–8679   LDA–8679
   RWY 21: TORA–10165 TODA–10165 ASDA–10165 LDA–10165
   RWY 26: TORA–8679   TODA–8679   ASDA–8679   LDA–8679
SERVICE: S4   FUEL 100LL, JET A   OX 1, 2, 3, 4   LGT ATC–CTL. When
   ATCT clsd ACTVT MALSR Rwy 03 and 08; REIL Rwy 21; PAPI Rwy
   03 and 26; HIRL Rwy 03–21 and Rwy 08–26; twy lgts—CTAF.
AIRPORT REMARKS: Attended continuously. Emerg pwr avbl Rwy 08–26 and
   Rwy 03–21. Rwy 08–26 and Rwy 03–21 have lgtd distance
   remaining signs. Rwys clsd to FSL, TGL, and PLA aircraft more than
   250,000 lbs except for 4 hrs PPR 307–995–3949. 225 ft crane 1
   NM northeast of arpt. Flight Notification Service (ADCUS) available.
AIRPORT MANAGER: 307-472-6688
WEATHER DATA SOURCES: ASOS (307) 472–8960 LAWRS 1200–0400Z‡.
COMMUNICATIONS: CTAF 118.3 ATIS 126.15 UNICOM 122.95
   RCO 122.6 (CASPER RADIO)
Ⓡ APP/DEP CON 120.65 (1200–0400Z‡)
Ⓡ DENVER CENTER APP/DEP CON 135.6 (0400–1200Z‡)
   TOWER 118.3 (1200–0400Z‡) GND CON 121.9 CLNC DEL 121.9
CLEARANCE DELIVERY PHONE: For CD ctc Casper Apch at 307-472-8940, when Apch clsd ctc Denver ARTCC at 303-651-4257.
AIRSPACE: CLASS D svc 1200–0400Z‡; other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE CPR.
   MUDDY MOUNTAIN (H) (H) VORW/DME 116.2   DDY   Chan 109   N43°05.45´ W106°16.62´   205° 13.8 NM to fld.
      5863/12E.
   ILS 111.3   I–SYD   Rwy 03.   Class IB.   Syd LOC is unmonitored from 0400–1200Z‡ daily.
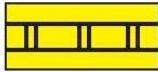COMM/NAV/WEATHER REMARKS: Emerg freq 121.5 not avbl at twr.

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HARFORD FLD (HAD)(KHAD)   5 N   UTC–7(–6DT)   N42°55.46´ W106°18.57´   CHEYENNE

AIRPORT SIGN SYSTEMS

TYPE OF SIGN AND ACTION OR PURPOSE		TYPE OF SIGN AND ACTION OR PURPOSE	
4-22	**Taxiway/Runway Hold Position:** Hold short of runway on taxiway	(yellow/black boundary marking)	**Runway Safety Area/Obstacle Free Zone Boundary:** Exit boundary of runway protected areas
26-8	**Runway/Runway Hold Position:** Hold short of intersecting runway	(yellow/black boundary marking)	**ILS Critical Area Boundary:** Exit boundary of ILS critical area
8-APCH	**Runway Approach Hold Position:** Hold short of aircraft on approach	**J→**	**Taxiway Direction:** Defines direction & designation of intersecting taxiway(s)
ILS	**ILS Critical Area Hold Position:** Hold short of ILS approach critical area	**↙L**	**Runway Exit:.** Defines direction & designation of exit taxiway from runway
⊖	**No Entry:** Identifies paved areas where aircraft entry is prohibited	**22↑**	**Outbound Destination:** Defines directions to takeoff runways
B	**Taxiway Location:** Identifies taxiway on which aircraft is located	**↖MIL**	**Inbound Destination:** Defines directions for arriving aircraft
22	**Runway Location:** Identifies runway on which aircraft is located	(yellow/black striped marker)	**Taxiway Ending Marker** Indicates taxiway does not continue
4	**Runway Distance Remaining** Provides remaining runway length in 1,000 feet increments	**↙A G L→**	**Direction Sign Array:** Identifies location in conjunction with multiple intersecting taxiways