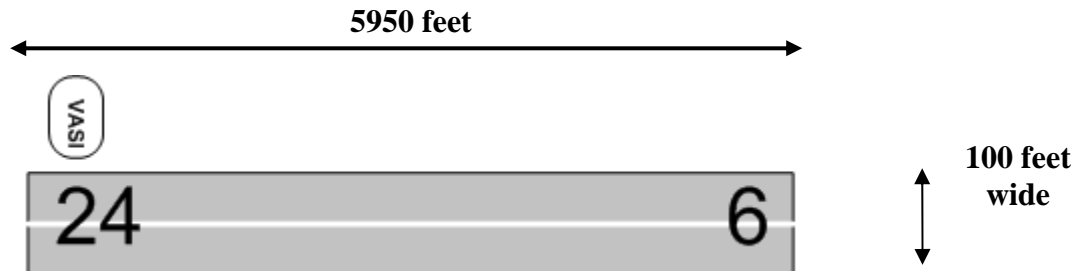


Pattern Operations at R. J. Miller Airport

Cessna 172 – CAP 180 HP

R. J. Miller Airport Complex

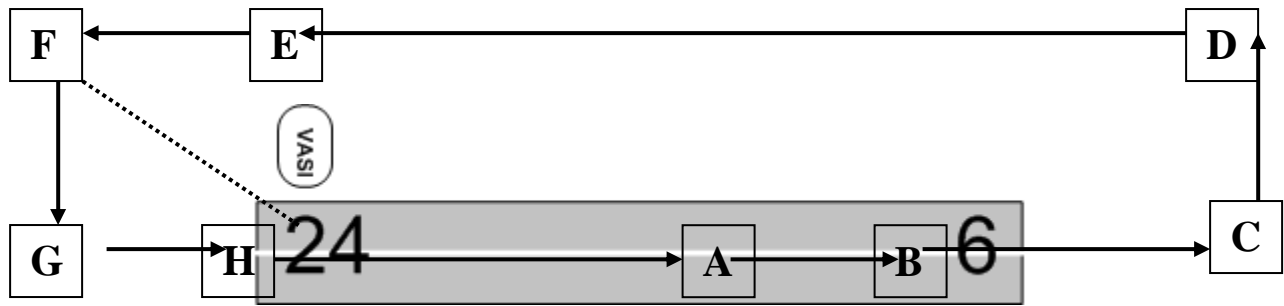
- Airport Designator: KMJX
- Runway dimensions: 5950 feet x 100 feet



- Field Elevation: 82 feet MSL
- Pattern Altitude: 1,000 feet MSL
- Calm Wind Runway: 24
- Frequencies:
 - CTAF: 122.7
 - ASOS: 119.875
 - ILS 6 : 109.9 [Localizer 061°]
 - VOR/GPS 6: 113.4 [Coyle VOR (CYN) 054° radial]
 - VOR/GPS 24 113.4 [Coyle VOR (CYN) 054° radial]
- Phone Numbers:
 - FBO: 732-797-1077
 - ASOS: 732-244-4450
- Night Operations
 - Rotating Beacon
 - Pilot Controlled Lighting (PCL):
 - High intensity: seven clicks on CTAF
 - Medium intensity: five clicks on CTAF
 - Low intensity: three clicks on CTAF
- Restrictions: None
- Noise Abatement Procedures: None
- Approaches: ILS/LOC 6, VOR/GPS 6, VOR/GPS 24

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Pattern Work – Runway 24 R. J. Miller
Cessna 172 – CAP 180 HP

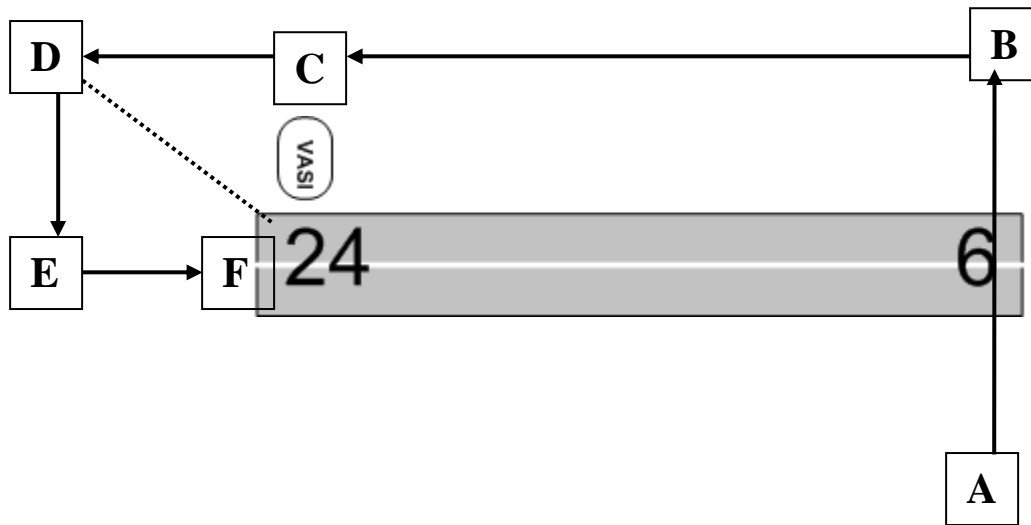


Procedures		
A	<ol style="list-style-type: none"> 1. Begin rotation at 55 KIAS 2. Pitch for 60 KIAS 	<ol style="list-style-type: none"> 3. Establish climb 4. TC = ball centered
B	<ol style="list-style-type: none"> 1. Pitch for 76 KIAS 2. Maintain runway heading of 240° 	<ol style="list-style-type: none"> 3. Climb to 700 ft MSL
C	<ol style="list-style-type: none"> 1. Make crosswind turn to 150° 2. Level off at 1000 ft MSL 3. Throttle to 2300 RPM 	<ol style="list-style-type: none"> 4. Adjust trim for level flight <ol style="list-style-type: none"> a. ASI = stable in green arc b. TC = wings level, ball centered c. AI = level on horizon d. HI = 150° e. ALT = 1000 f. VSI = 0
D	About ½ Mile from Extended Center Line <ol style="list-style-type: none"> 1. Turn downwind to heading of 060° 2. Carb Heat – On 3. Throttle 2000 RPM 	<ol style="list-style-type: none"> 4. Maintain straight-and-level flight <ol style="list-style-type: none"> a. ASI = 90 KIAS b. TC = wings level, ball centered c. AI = level on horizon d. HI = 060° e. ALT = 1000 f. VSI = 0
E	Abeam Base Numbers (24) <ol style="list-style-type: none"> 1. Throttle 1500 RPM 2. Flaps -- 10° 3. Push yoke forward to minimize ballooning from flap extension 4. Pitch down for 500 FPM 5. Carb Heat – On 	<ol style="list-style-type: none"> 6. Verify Instruments <ol style="list-style-type: none"> a. ASI = 80 KIAS b. TC = wings level, ball centered c. AI = level on horizon d. HI = 060° e. ALT = 1000 f. VSI = 500 ↓ start descent

Procedures

F	<p>At 45° from the runway threshold</p> <ol style="list-style-type: none"> 1. Turn to heading of 330° 2. Flaps -- 20° 	<ol style="list-style-type: none"> 3. Verify instruments <ol style="list-style-type: none"> a. ASI = 75 KIAS b. TC = wings level, ball centered c. AI = about 5° below horizon d. HI = 330° e. ALT = descending f. VSI = 500 FPM ↓ g. Tachometer = 1500 RPM
G	<p>When nose is about to touch extended centerline</p> <ol style="list-style-type: none"> 1. Turn to heading of 240° 2. Flaps -- 30° 3. No slips with more than 10° of flaps 4. VASI = Red/White 	<ol style="list-style-type: none"> 5. Verify instruments <ol style="list-style-type: none"> a. ASI = 65 - 70 KIAS b. TC = wings level, ball centered c. AI = about 5° below horizon d. HI = 240° e. ALT = descending f. VSI = 500 FPM ↓ g. Tachometer = 1500 RPM
H	<p>Just before crossing the threshold</p> <ol style="list-style-type: none"> 1. Throttle to Idle (full back) 2. Pitch for 65 KIAS 3. At 2 – 3 feet above runway surface <ol style="list-style-type: none"> a. Begin flare b. Gently apply back pressure to the yoke 4. If flare too high, add 100 RPM 	<ol style="list-style-type: none"> 5. If go-around is necessary <ol style="list-style-type: none"> a. Full power b. Carb heat – Off c. Flaps up 10° d. Pitch for 60 KIAS e. Establish positive rate of climb f. Flaps up 10° g. Establish 500 FPM ↑ h. At 700 ft MSL retract flaps i. Pitch for 76 KIAS

Crosswind Entry – Runway 24 R. J. Miller Cessna 172 – CAP 180 HP



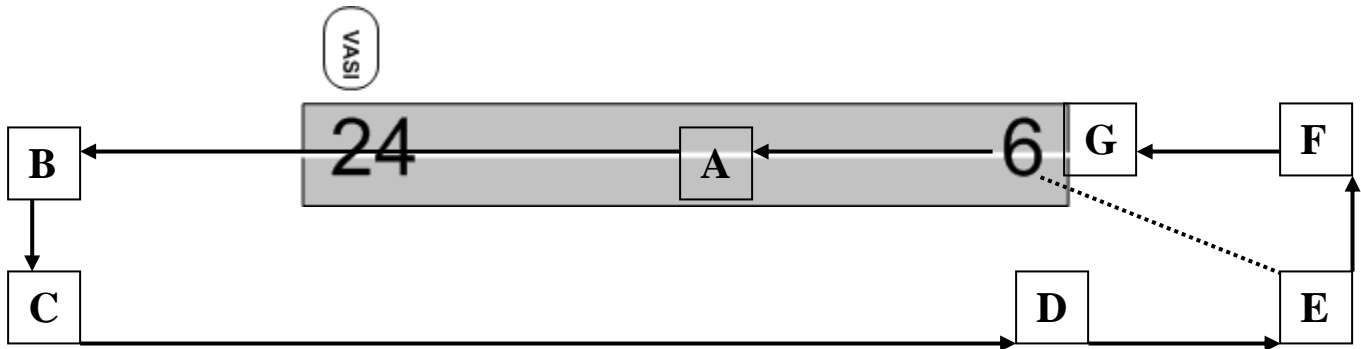
Procedures		
A	<ol style="list-style-type: none"> 1. Descend to and maintain 1000 ft MSL before entering traffic pattern 2. Make crosswind entry at 150° over base numbers 3. Throttle to 2300 RPM 	<ol style="list-style-type: none"> 4. Adjust trim for level flight <ol style="list-style-type: none"> a. ASI = stable in green arc b. TC = wings level, ball centered c. AI = level on horizon d. HI = 150° e. ALT = 1000 f. VSI = 0
B	About ½ Mile from Extended Center Line <ol style="list-style-type: none"> 1. Turn downwind to heading of 060° 2. Carb Heat – On 3. Throttle 2000 RPM 	<ol style="list-style-type: none"> 4. Maintain straight-and-level flight <ol style="list-style-type: none"> a. ASI = 90 KIAS b. TC = wings level, ball centered c. AI = level on horizon d. HI = 060° e. ALT = 1000 f. VSI = 0
C	Abeam Base Numbers (24) <ol style="list-style-type: none"> 1. Throttle 1500 RPM 2. Flaps -- 10° 3. Push yoke forward to minimize ballooning from flap extension 4. Pitch down for 500 FPM 5. Carb Heat – On 	<ol style="list-style-type: none"> 6. Verify Instruments <ol style="list-style-type: none"> a. ASI = 80 KIAS b. TC = wings level, ball centered c. AI = level on horizon d. HI = 060° e. ALT = 1000 f. VSI = 500 ↓ start descent

Procedures

D	<p>At 45° from the runway threshold</p> <ol style="list-style-type: none"> 1. Turn to heading of 330° 2. Flaps -- 20° 	<ol style="list-style-type: none"> 3. Verify instruments <ol style="list-style-type: none"> a. ASI = 75 KIAS b. TC = wings level, ball centered c. AI = about 5° below horizon d. HI = 330° e. ALT = descending f. VSI = 500 FPM ↓ g. Tachometer = 1500 RPM
E	<p>When nose is about to touch extended centerline</p> <ol style="list-style-type: none"> 1. Turn to heading of 240° 2. Flaps -- 30° 3. No slips with more than 10° of flaps 4. VASI = Red/White 	<ol style="list-style-type: none"> 5. Verify instruments <ol style="list-style-type: none"> a. ASI = 65-70 KIAS b. TC = wings level, ball centered c. AI = about 5° below horizon d. HI = 240° e. ALT = descending f. VSI = 500 FPM ↓ g. Tachometer = 1500 RPM
F	<p>Just before crossing the threshold</p> <ol style="list-style-type: none"> 1. Throttle to Idle (full back) 2. Pitch for 65 KIAS 3. At 2 – 3 feet above runway surface <ol style="list-style-type: none"> a. Begin flare b. Gently apply back pressure to the yoke 4. If flare too high, add 100 RPM 	<ol style="list-style-type: none"> 5. If go-around is necessary <ol style="list-style-type: none"> a. Full power b. Carb heat – Off c. Flaps up 10° d. Pitch for 65 KIAS e. Establish positive rate of climb f. Flaps up 10° g. Establish 500 FPM ↑ h. At 700 ft MSL retract flaps i. Pitch for 76 KIAS

Pattern Work – Runway 6 R. J. Miller

Cessna 172 – CAP 180 HP

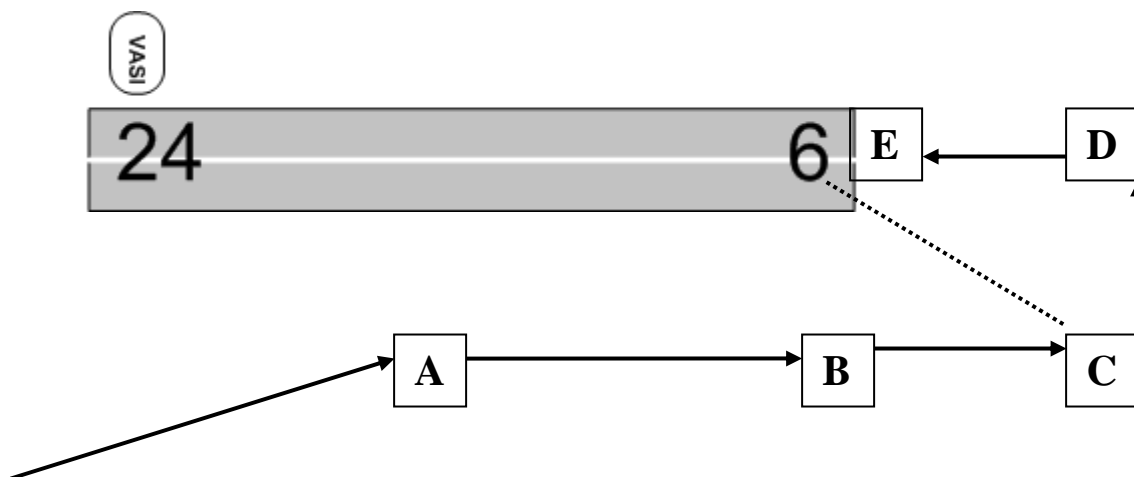


Procedures	
A	<ol style="list-style-type: none"> 1. Begin rotation at 55 KIAS 2. Pitch for 60 KIAS 3. Establish climb 4. TC = ball centered 5. Pitch for 76 KIAS 6. Hold runway heading 060° to 700 ft MSL
B	<ol style="list-style-type: none"> 1. Make crosswind turn to 330° 2. Level off at 1000 ft MSL 3. Throttle to 2300 RPM 4. Adjust trim for level flight <ol style="list-style-type: none"> a. ASI = stable in green arc b. TC = wings level, ball centered c. AI = level on horizon d. HI = 330° e. ALT = 1000 f. VSI = 0
C	<p>About ½ Mile from Extended Center Line</p> <ol style="list-style-type: none"> 1. Turn downwind to heading of 240° 2. Carb Heat – On 3. Throttle 2000 RPM 4. Maintain straight-and-level flight <ol style="list-style-type: none"> a. ASI = 90 KIAS b. TC = wings level, ball centered c. AI = level on horizon d. HI = 240° e. ALT = 1000 f. VSI = 0
D	<p>Abeam Base Numbers (6)</p> <ol style="list-style-type: none"> 1. Throttle 1500 RPM 2. Flaps -- 10° 3. Push yoke forward to minimize ballooning from flap extension 4. Pitch down for 500 FPM 5. Carb Heat – On 6. Verify Instruments <ol style="list-style-type: none"> a. ASI = 80 KIAS b. TC = wings level, ball centered c. AI = level on horizon d. HI = 240° e. ALT = 1000 f. VSI = 500 ↓ start descent

Procedures

E	<p>At 45° from the runway threshold</p> <ol style="list-style-type: none"> 1. Turn to heading of 150° 2. Flaps -- 20° 	<ol style="list-style-type: none"> 3. Verify instruments <ol style="list-style-type: none"> a. ASI = 75 KIAS b. TC = wings level, ball centered c. AI = about 5° below horizon d. HI = 150° e. ALT = descending f. VSI = 500 FPM ↓ g. Tachometer = 1500 RPM
F	<p>When nose is about to touch extended centerline</p> <ol style="list-style-type: none"> 1. Turn to heading of 060° 2. Flaps -- 30° 3. No slips with more than 10° of flaps 4. VASI = Red/White 	<ol style="list-style-type: none"> 5. Verify instruments <ol style="list-style-type: none"> a. ASI = 65-70 KIAS b. TC = wings level, ball centered c. AI = about 5° below horizon d. HI = 060° e. ALT = descending f. VSI = 500 FPM ↓ g. Tachometer = 1500 RPM
G	<p>Just before crossing the threshold</p> <ol style="list-style-type: none"> 1. Throttle to Idle (full back) 2. Pitch for 65 KIAS 3. At 2 – 3 feet above runway surface <ol style="list-style-type: none"> j. Begin flare k. Gently apply back pressure to the yoke 4. If flare too high, add 100 RPM 	<ol style="list-style-type: none"> 5. If go-around is necessary <ol style="list-style-type: none"> a. Full power b. Carb heat – Off c. Flaps up 10° d. Pitch for 60 KIAS e. Establish positive rate of climb f. Flaps up 10° g. Establish 500 FPM ↑ h. At 700 ft MSL retract flaps i. Pitch for 76 KIAS

Mid-Field 45° – Runway 6 R. J. Miller
Cessna 172 – CAP 180 HP



Procedures		
A	<ol style="list-style-type: none"> 1. Position for diagonal intercept to terminal building and track inbound 2. Track on carnival Ferris wheel for pattern width 3. Descend to and maintain 1000 ft MSL prior to entering traffic pattern 4. Turn downwind to heading of 240° 5. Carb Heat – On 6. Throttle 2000 RPM 	<ol style="list-style-type: none"> 7. Maintain straight-and-level flight <ol style="list-style-type: none"> a. ASI = 90 KIAS b. TC = wings level, ball centered c. AI = level on horizon d. HI = 240° e. ALT = 1000 f. VSI = 0
B	Abeam Base Numbers (6) <ol style="list-style-type: none"> 1. Throttle 1500 RPM 2. Flaps -- 10° 3. Push yoke forward to minimize ballooning from flap extension 4. Pitch down for 500 FPM 5. Carb Heat – On 	<ol style="list-style-type: none"> 6. Verify Instruments <ol style="list-style-type: none"> a. ASI = 80 KIAS b. TC = wings level, ball centered c. AI = level on horizon d. HI = 240° e. ALT = 1000 f. VSI = 500 ↓ start descent
C	At 45° from the runway threshold <ol style="list-style-type: none"> 1. Turn to heading of 150° 2. Flaps -- 20° 	<ol style="list-style-type: none"> 3. Verify instruments <ol style="list-style-type: none"> a. ASI = 75 KIAS b. TC = wings level, ball centered c. AI = about 5° below horizon d. HI = 150° e. ALT = descending f. VSI = 500 FPM ↓ g. Tachometer = 1500 RPM

Procedures

D	<p>When nose is about to touch extended centerline</p> <ol style="list-style-type: none"> 1. Turn to heading of 060° 2. Flaps -- 30° 3. No slips with more than 10° of flaps 4. VASI = Red/White 	<ol style="list-style-type: none"> 5. Verify instruments <ol style="list-style-type: none"> a. ASI = 70 KIAS b. TC = wings level, ball centered c. AI = about 5° below horizon d. HI = 060° e. ALT = descending f. VSI = 500 FPM ↓ g. Tachometer = 1500 RPM
E	<p>Just before crossing the threshold</p> <ol style="list-style-type: none"> 1. Throttle to Idle (full back) 2. Pitch for 70 KIAS 3. At 2 – 3 feet above runway surface <ol style="list-style-type: none"> a. Begin flare b. Gently apply back pressure to the yoke 4. If flare too high, add 100 RPM 	<ol style="list-style-type: none"> 5. If go-around is necessary <ol style="list-style-type: none"> a. Full power b. Carb heat – Off c. Flaps up 10° (pull lever for 2 seconds) d. Pitch for 60 KIAS e. Establish positive rate of climb f. Flaps up 10° g. Establish 500 FPM ↑ h. At 700 ft MSL retract flaps i. Pitch for 76 KIAS

V-Speeds for Cessna 172 – CAP 180 HP

Vspeed	Airspeed in KIAS
V_X	60
V_Y	76
V_A	105
V_S	50
V_{SO}	40
V_{FE}	85
V_{NO}	127
V_{NE}	158
V_{Rotate}	60
V_{Final}	65 – 70
V_{Glide}	70

Terms, Definitions, Abbreviations

Cessna 172 – CAP 180 HP

Term	Definition
AGL	Above Ground Level
AI	Attitude Indicator or Artificial Horizon
Alignment	Ground crew member who uses hand signals to provide taxiing instructions
ALT	Altimeter
ASI	Airspeed Indicator
ASOS	Automated Surface Observation System
AWOS	Automated Weather Observation System. Predecessor of ASOS
CTAF	Common Traffic Advisory Frequency
DG	Directional Gyro or Heading Indicator
FBO	Fixed Base Operator
Ground	Frequency used to contact Ground Control
HI	Heading Indicator or Directional Gyro
Interval	Aircraft in front of your aircraft in the pattern
MSL	Mean Sea Level
PCL	Pilot-controlled Lighting
TC	Turn Coordinator
Tower	Frequency used to contact the Control Tower
TPA	Traffic Pattern Altitude
Unicom	Usually same as CTAF. Used to call for fuel or other services, e.g. Miller Unicom
VASI	Visual Approach Slope Indicator White/White Above glideslope (high) [You'll fly all night] Red/White On glideslope [You're all right] Red/Red Below glideslope (low) [You're dead]
VSI	Vertical Speed Indicator