SO, YOU WANT TO BE A PILOT?

A GUIDE TO THE PILOT APPLICATION PROCESS
SO, YOU WANT TO BE A PILOT?

Welcome to the 172nd Squadron -- the Battle Creek Cereal Killers! We pride ourselves in being at the leading edge of professional military aviation. We’re pleased that you have expressed an interest in joining our ranks. This guide is intended to provide you, the hopeful future Pilot, with an outline of the proceedings you will experience, and the actions you must take to progress through the Undergraduate Pilot Training (UPT) process.

This guide contains information for you in the following areas:

- Points of Contact
- 172nd Squadron / 110th Fighter Wing Mission
- C-21/C-27 Information and Specifications
- Qualification for Application
- Steps in Applying for UPT
- Training Involved
- Military Obligations and Unit Expectations
- Pilot Applicant Information Sheet

POINTS OF CONTACT:

Major Mike Lowes
C-Flight Commander/ UPT OIC
michael.lowes@mibatt.ang.af.mil

Ms. Veronica Barnes
veronica.barnes@mibatt.ang.af.mil
1-800- 432-4296 ext. 1
172ND SQUADRON / 110TH WING MISSION

The 172nd Squadron, of the 110th Wing, Michigan Air National Guard, is currently based at the Battle Creek Air National Guard Base, Michigan.

Federal Mission

Our Federal Mission is to fly directed missions with in the C-21 to maintain flying readiness for follow on flying missions with the C-27 Joint Cargo Aircraft.

State Mission

Our State Mission provides that the Air National Guard, under the competent orders of state authorities, provides protection of life and property, and preserves peace, order and public safety. State Missions include disaster relief in times of natural disaster, search and rescue, protection of vital public services, and support of civil defense.

110th Wing Mission Statement

Combat Power and Mission Support, serving the Community, State & Nation.

110th Operations Group/172nd Squadron Mission Statement

To maintain the highest level of readiness in order to support unit tasking for any State or National contingency.
C-21

Mission
The C-21 is a twin turbofan engine aircraft used for cargo and passenger airlift. The aircraft is the military version of the Lear Jet 35A business jet. In addition to providing cargo and passenger airlift, the aircraft is capable of transporting one litter or five ambulatory patients during aeromedical evacuations.

Features
The turbofan engines are pod-mounted on the sides of the rear fuselage. The swept-back wings have hydraulically actuated, single-slotted flaps. The aircraft has a retractable tricycle landing gear, single steerable nose gear and multiple-disc hydraulic brakes.

The C-21 can carry eight passengers and 42 cubic feet (1.26 cubic meters) of cargo. The fuel capacity of the C-21 is 931 gallons (3,537.8 liters) with refueling accomplished at ground level through each wingtip tank. The safety and operational capabilities of the C-21 are increased by the autopilot, color weather radar and tactical air navigation system, as well as high frequency, very high frequency and ultra high frequency radios.

The aircraft has a crew of two and may be flown from either cockpit seat. It is equipped with an automatic navigation system to enhance crew efficiency. Four cathode ray tubes display essential information to the pilots.

Background
Delivery of the C-21 fleet began in April 1984 and was completed October 1985. DynCorp Technical Services provides full contractor logistics support at seven worldwide locations.

On April 1, 1997, all continental U.S.-based C-21s were realigned under Air Mobility Command, with the 375th Airlift Wing at Scott Air Force Base, Ill., as the lead command. C-21s stationed outside the continental United States are assigned to the theater commanders.

General Characteristics
Primary Function: Passenger and cargo airlift
**Prime Contractor:** Learjet, Inc.

**Power Plant:** Two Garrett TFE-731-2-2B turbofan engines

**Thrust:** 3,500 pounds each engine

**Length:** 48 feet, 7 inches (14.71 meters)

**Height:** 12 feet, 3 inches (3.71 meters)

**Maximum Takeoff Weight:** 18,300 pounds (8,235 kilograms)

**Wingspan:** 39 feet, 6 inches (11.97 meters)

**Maximum Speed:** 530 mph (Mach 0.81, 461 knots at 41,000 feet (12,496.8 meters)

**Ceiling:** 45,000 feet (13,716 meters)

**Fuel Capability:** 931 gallons (3,537.8 liters) [1,120 gallons (4,256 liters) with ferry tanks]

**Maximum Range:** 2,306 miles (3,699.6 kilometers)

**Maximum Load:** Eight passengers and 3,153 pounds (1,433 kilograms) of cargo, one litter patient or five ambulatory patients

**Crew:** Two (pilot and co-pilot)

**Date Deployed:** April 1984

**Unit Cost:** $3.1 million (fiscal 1996 constant dollars)
## Weights

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit (lb)</th>
<th>Unit (kg)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum take off weight (logistic)</td>
<td></td>
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<td>70,107</td>
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<tr>
<td>Maximum take off weight (basic)</td>
<td></td>
<td></td>
<td>67,241</td>
</tr>
<tr>
<td>Maximum landing weight (6 FPS sink rate)</td>
<td></td>
<td></td>
<td>67,241</td>
</tr>
<tr>
<td>Normal landing weight (10 FPS sink rate)</td>
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<td></td>
<td>60,627</td>
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<tr>
<td>Maximum payload</td>
<td></td>
<td></td>
<td>25,383</td>
</tr>
<tr>
<td>Fuel capacity (US Gal)</td>
<td>US Gal</td>
<td>l</td>
<td>3,255</td>
</tr>
<tr>
<td>Optional fuel tank</td>
<td>US Gal</td>
<td>l</td>
<td>402</td>
</tr>
</tbody>
</table>

## Configurations and Loads

- Troop transport
- Paratroop transport
- Cargo transport/Low Velocity Air Drop (LVAD)
- 12E (64"x98")
- 7 HCJ-12E (64"x88")
- 12 A22 CDS Bundles with a maximum weight of 19,842 lbs
- LAPES up to 11,200 lbs
- Wheeled and tracked vehicles, spare engines, etc.
- Medevac 36 stretchers + 6 medical attendants

## Powerplant

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<tr>
<th>Description</th>
<th>Details</th>
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<tbody>
<tr>
<td>Engine</td>
<td>Rolls-Royce AE 2100-D2</td>
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<tr>
<td>Power 4637 SHP</td>
<td></td>
</tr>
<tr>
<td>Propeller</td>
<td>Dowty R-391 six-blade</td>
</tr>
<tr>
<td>Diameter (m)</td>
<td>4.11 ft (13 a 5)</td>
</tr>
</tbody>
</table>

## Performance

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit (ft)</th>
<th>Unit (m)</th>
<th>Value</th>
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</thead>
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<tr>
<td>Tactical take off ground run (MTOW, ISA, S.L.)</td>
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<td></td>
<td>1,903</td>
</tr>
<tr>
<td>One engine out ceiling at ISA, 95% MTOW</td>
<td></td>
<td></td>
<td>14,500</td>
</tr>
<tr>
<td>Maximum service ceiling</td>
<td></td>
<td></td>
<td>30,000</td>
</tr>
<tr>
<td>Maximum cruise speed</td>
<td></td>
<td></td>
<td>315 Ktas</td>
</tr>
<tr>
<td>Landing ground roll (MLW normal, ISA, S.L.)</td>
<td></td>
<td></td>
<td>1,115</td>
</tr>
</tbody>
</table>

## Range (logistic operation)

- with 22,046 lbs of payload  (nm) | 1,000 (km) | 1,852
- with 13,227 lbs of payload   (nm) | 2,300 (km) | 4,260
- Ferry                         (nm) | 3,200 (km) | 5,926
QUALIFICATIONS FOR APPLICATION

You must meet these minimum qualifications to qualify for an Air National Guard pilot position in the 172nd Squadron:

- United States Citizenship;
- 4 year college graduate with a Bachelor’s Degree- You need not have graduated already, but you must be close to graduation. If you are selected, you must graduate before you will be sent to UPT.
- Must enter into UPT prior to reaching 30 years of age (must meet the selection board prior to reaching 29 years of age).
- You must have passed or be able to pass an Air Force flying physical
- Height and weight within Air Force standards- The Air Force flying physical also requires a standing height of between 64"-76", and a sitting height of between 34"-39".
- Vision within current guidelines- This includes minimum vision standards as follows: minimum distant vision is 20/70 which must be corrected to 20/20; and minimum near vision is 20/30, corrected to 20/20. For those with a history of vision surgery, a waiver may be required. This applies to PRK only. LASIK surgery is not accepted.

Note: Certain past or present medical conditions may disqualify an applicant. An Air Force recruiter can provide specific information concerning these conditions.

- Air Force Officers Qualification Test (AFOQT)- Although completion of this test is not required with your application, it is highly desired. Applicants will be required to take the AFOQT and to meet minimum scores. The AFOQT is a five-part test given at bases and recruiter offices around the country. The AFOQT covers Verbal, Math, General Aptitude, Pilot skills, and Navigator skills. The minimum acceptable scores in each area are 10, 10, 0, 25, and 10, respectively, with the minimum cumulative pilot/navigator score being 50. Study guides are available through most local bookstores (ask for study guides pertaining to Military Flight Aptitude Tests or Military Officer Qualifying Tests). You need to perform well on this test, as you are only allowed to retake it once in your lifetime. You can schedule yourself for the AFOQT at Battle Creek ANGB or at another military installation. Information on taking the AFOQT can be obtained by calling our Recruiting Office at 1-800-432-4296.

The following qualifications are also recommended:

- Michigan residency is desirable;
- Private Pilot’s license or better is desirable;
- Military experience is desirable; unit membership is highly desirable.
STEPS IN APPLYING FOR A PILOT TRAINING SLOT

Applicants for an Undergraduate Pilot Training (UPT) slot will need to submit the following paperwork by mail to:

Major Mike Lowes
UPT Applicant OIC
172nd Squadron
150 Lightning Ave
Battle Creek ANGB, MI 49037

Submit the following:
1. One page cover letter explaining why you want to become a pilot in the Air National Guard.
2. One page resume (chronological statement of military and/or civilian experience and education, including extracurricular activities).
3. Completed “Pilot Applicant Information Sheet” with appropriate attachments. (The “Pilot Applicant Information Sheet” is included at the end of this booklet).
4. No more than three letters of recommendation. Letters should attest to your character, integrity, work ethic, ability to succeed, patriotism, desire/ability to fly, etc. It is highly desirable to have a letter of recommendation from a current member of the unit.

APPLICATION PROCESS

1. Submit application package.
2. The most qualified applicants will be selected and scheduled to meet the Pilot Interview Board.
3. Should your application process get delayed, you may be considered for the following year.

Note: Applicants selected for a flying position are then required to join the Air National Guard. You will be required to take an Air Force flying physical and to pass a security background investigation. If not yet taken, you will be required to take the Air Force Officer Qualification Test (AFOQT). After completion of all these requirements you will then be scheduled for training (to include Air Force Undergraduate Pilot Training).

Squadron visit

Due to considerable time and expense of traveling, applicants are not required to visit the squadron prior to being invited to interview. However, if an applicant wishes to visit, they may do so. Please contact Major Lowes to arrange a time.

Interviews

Selected applicants will receive initial interviews from the Pilot Interview Board. During this interview, your initial paperwork will be reviewed and some preliminary questions will be asked. This is also one of the best times for you to ask questions of these officers.

You will be notified if you are selected for an interview. Travel to the interview is at your own expense. The interview will be held at our unit in Battle Creek, Michigan.

The Pilot Interview Board in generally convened once a year to select individuals for the available UPT slots. The board is comprised of members of the 172nd Squadron.

The recommendations of the Pilot Interview Board are made on the “Total Person” concept. While all factors are looked at very carefully, selection is generally made of those individuals who will most likely
contribute to the squadron once they have returned from training. Therefore, while previous flying time is definitely a plus, it is not the sole consideration for being selected for pilot training.

The board is interested in knowing the real you. That means they would like you to be sincere in the application. We know that you want to fly, or you wouldn’t have applied, so what we’re interested in are your thoughts, interests, hobbies, and your plans for the future. Once again, we are looking for those individuals who will be able to contribute to the squadron, not only as a pilot, but also as an officer in the Michigan Air National Guard.

Our Senior Leadership will interview finalists from the initial interviews prior to final selection. The Senior Leadership, based on the final interviews and recommendations from the Pilot Interview Board, will select the UPT Candidates.

**Flying Physical**

Primary and alternate candidates will be scheduled to take a flying physical. The physical is administered at the 110th Wing Clinic, by 110th FW Flight Surgeons, during drill weekends. The 110th FW Recruiting Office will schedule you for a physical. The physical will take between 3 and 6 hours, depending on the number of other people taking physicals that day. The physical will include an eye exam, a hearing test (no significant hearing loss), blood pressure and EKG, lab work, and a dental check. You must pass the physical in order to continue on to UPT.

**Additional Paperwork**

As a UPT Candidate, you will be required to submit additional paperwork to the 110th FW Recruiting Office. If selected, contact MSgt Mark Downing, (800) 432-4296 ext. 1 to set up an appointment.

Upon review and satisfactory results of the AFOQT, the flying physical, and final paperwork submitted, UPT Candidates will be offered a UPT slot in our unit.

You will also be required to pass a security clearance background investigation. You will need to submit the appropriate paperwork for this. This investigation can take 6 to 9 months to complete.

**TRAINING REQUIRED**

You must realize that, if you are selected for a UPT slot, you will be required to perform full time active duties for as long as three years after being sworn in to the Air National Guard. The following is a list of the schools that you will have to attend:

- Introductory Flight Training (IFT)
- Academy of Military Science (AMS)
- Undergraduate Pilot Training (UPT)
- Water Survival School
- Land Survival School
- C-21 Qualification Course (RTU)
- Local Area Mission Qualification Training (MQT)

**Introductory Flight Training (IFT)**

- Candidates without a private pilots license (PPL) must solo within 25 hours, complete a total of flying 50 hours, and obtain a PPL.
• Candidates with PPLs must complete additional flying time based on their last flight review (i.e., checkride).

Academy of Military Science (AMS)

• Curriculum includes: Basic Military Training, Military Customs and Courtesies, Professional Development, Leadership, Military Justice, Drill and Ceremonies.
• Physical training requirements include being able to run 1 1/2 miles under 12 minutes.
• Graduate as a Second Lieutenant.
• Location is McGhee-Tyson Airport, Knoxville, TN.
• Duration is 6 weeks.

Undergraduate Pilot Training (UPT)

• Curriculum includes:
  ⇒ Ground School: Systems knowledge, Aerodynamics, Meteorology, Physiological Training
  ⇒ Flight Training in the T-6 (approx. 90 flight hours): Contact (aerobatics, patterns, orientation), Instruments (VOR, ILS, GCA approaches and navigation), Formation, Cross-Country.
  ⇒ Flight Training in the T-38 (approx. 110 flight hours): same as T-37 with increased emphasis on formation work.
• Location is one of the following: Columbus AFB, MS; Shepard AFB, TX; Laughlin AFB, TX;
• Duration is 12 months.

Water Survival School

• Academic and practical training on how to survive after bail out over water.
• Location is Eglin AFB, FL.
• Duration is 1 week.

Land Survival School

• Academic and practical training in escape and evasion techniques, survival techniques, and prisoner-of-war techniques.
• Location is Fairchild AFB, Spokane, WA.
• Duration is 2 weeks.

C-21 Qualification Course, RTU

• Academics and Flight Training for the C-21. Includes: aircraft systems and procedures
• Location is Dallas, TX and Keesler AFB Biloxi, MS.
• Duration is 2 months.

Local Area Mission Qualification Training (MQT)

• Academics and Flight Training to include: local area orientation
• Location is at Battle Creek ANGB, MI
• Duration is currently 254 days, with an additional 254 days also possible.
MILITARY OBLIGATIONS AND SQUADRON EXPECTATIONS

Obviously, we are investing significant resources into getting qualified pilots. In return, we expect our pilots to serve in the Michigan Air National Guard. Our Recruiting Office is the best source for finding out what the current required service obligation will be following your pilot training. However, we would like you to think in terms of a full military Air National Guard career, with a service of 20 years or more.

As a pilot in the unit, you will be required to be an active participant in the unit’s activities. This requirement includes:

- Drill Weekend attendance (usually one weekend each month);
- Meeting minimum flying requirements (currently 2-3 flights per month);
- Continued academic and training requirements;
- Unit deployments, including overseas and military contingency operations.
PILOT APPLICANT INFORMATION SHEET

Date: ________________________

Name: ______________________________

What is your date of birth? ____________________________
(The Air Force has a maximum age limit for entering their pilot training program).

College degree: YES NO

If you haven’t graduated yet, what is your projected graduation date? _______________

Grade Point Average (for Bachelor’s level): _______________
Please include an official transcript or other documentation for proof of your GPA.

Prior Military Experience:
Member of 110 Fighter Wing Yes No
Member of other MI ANG or MI AF Reserve Yes No
Current Active Duty Air Force Yes No
Member of other ANG Unit Yes No
Member of other AFRES Unit Yes No
Other service (Active Duty or Reserve) Yes No

Please provide the name and phone number of your military supervisor:

____________________________

Number of flying hours: _______________
Flight Ratings:
Please include a copy of your licenses
Private license Yes No
Commercial rating Yes No
Instrument rating Yes No
CFI Yes No
Multi-engine Yes No

What state do you currently live in? ___________________

What is your native state? ___________________
Why do you call this your native state? (i.e. born there, lived most of your life there, etc.)

Did you graduate from a college in Michigan? Yes No

Have you taken the AFOQT yet? Yes No

If yes, please include an official copy of your scores.

I testify that the above information I have provided is true.

Signature _____________________________________________________________