

**14 WING GREENWOOD ATC –
STANDARD OPERATIONAL PROCEDURES**

EFFECTIVE 02 October 2017

1. PURPOSE

1.1 To inform Freedom Aviation Society of the procedures for the operations of civilian aircraft into and out of Freedom Aviation Society’s location at 14 Wing Greenwood, and within the confines of 14 Wing Greenwood’s airspace.

2. ACRONYMS

1 CAD / SO ASR	1 Canadian Air Division Staff Officer Aerospace Standards and Regulations
14 Wg	14 Wing Greenwood
ACMO	Aerospace Control Management Orders (B-GA-164-000/AA-001)
ARFF	Aircraft Rescue and Fire Fighting
ASL	Above Sea Level
ATC	Air Traffic Control
ATC SO	14 Wing Air Traffic Control Section Orders
ATCU	Air Traffic Control Unit
ATIS	Automated Terminal Information System
CARs	Canadian Air Regulations
DWO	14 OSS Wing Ops Flight / Duty Watch Officer
EOD	Explosive Ordinance Disposal
FA	Flight Advisory
FAS	Freedom Aviation Society
FOM	Flight Operations Manual
IAW	In Accordance With
IFR	Instrument Flight Rules
LAHSO	Land And Hold Short Operations
MATS	Manual of Air Traffic Services
NORDO	No Radio
PAR	Precision Approach Radar
PIC	Pilot In Command
RONLY	Radio Only
Rwy	Runway
SOP	Standard Operating Procedures
Terminal	14 Wing Greenwood’s Terminal Control Unit
Tower	14 Wing Greenwood’s Control Tower
UAV	Unmanned Aerial Vehicle
VFR	Visual Flight Rules
WFO	14 Wing Flying Orders
Wg	Wing

3. DESCRIPTION OF AIRSPACE AND AIRFIELD

- 3.1 The Greenwood Control Zone (depicted in Fig 4-1) encompasses all airspace from the surface of the ground to 5000 feet ASL from the center of the Greenwood Airport extending to a radius of 7 nautical miles.

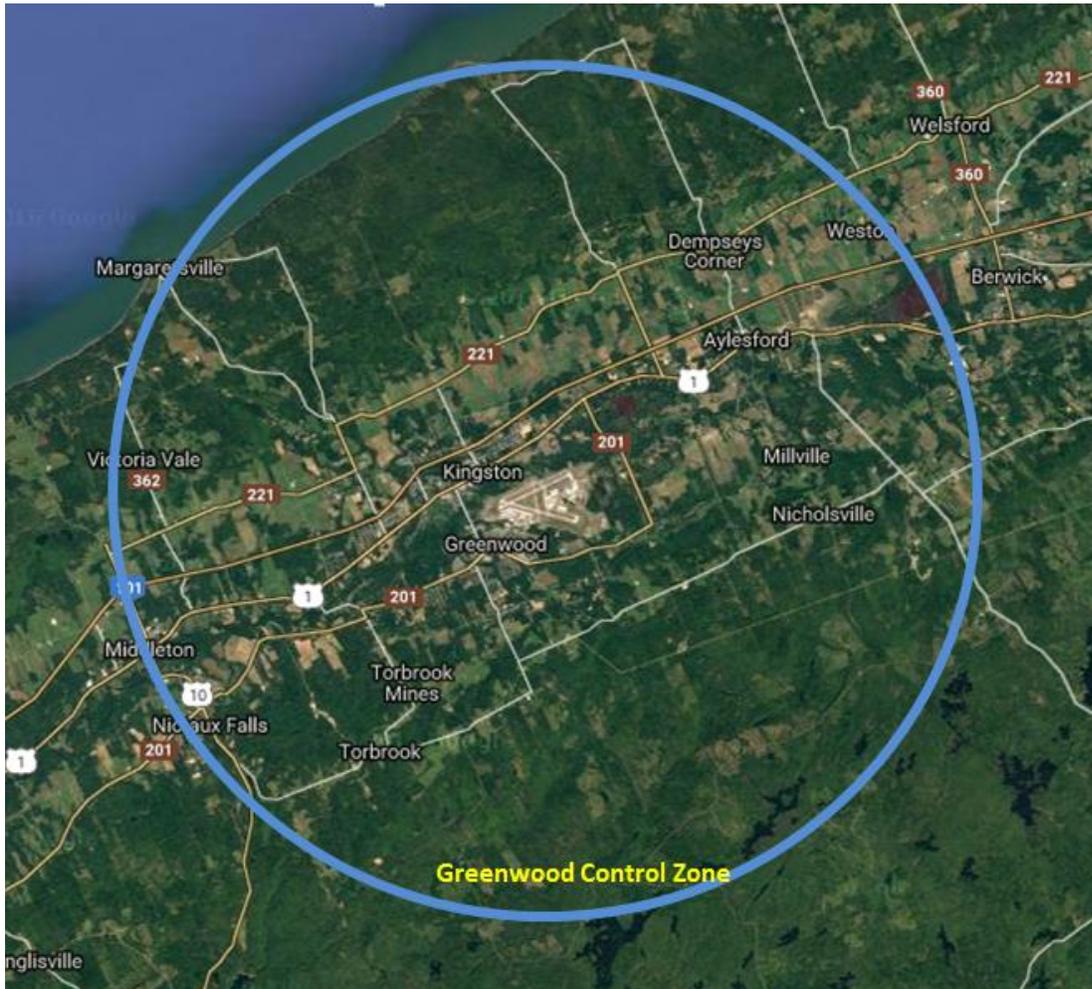


Fig 4-1

- 3.2 VFR Training Areas Alpha and Bravo (A & B in Fig 4-2) extend vertically from the surface to 5000 feet ASL, and covers an area that is within gliding distance over the Bay of Fundy south to Highway 221. The dividing line between Alpha and Bravo is a line running from Margaretville south to the Annapolis Valley. These are the two main VFR training areas to be used.

3.3 VFR Training Areas Charlie and Delta (C & D in Fig 4-2) extend vertically from the surface to 5000 feet ASL and covers an area that begins from the dam near New Albany and extends south to just north of New Germany. When other 14 Wg traffic (military or civilian) are conducting operations to the north that would interfere with training being conducted in areas Alpha and/or Bravo, then areas Charlie and/or Delta will be used to deconflict the operations.



Note: Area AA is no longer a valid aerobatics area.

Fig 4-2

3.4 The FAS compound (depicted in Fig 4-3) is located on the eastern edge of the Old Ramp. The gate accessing the airfield is located on the northern edge of the compound facing Hotel taxiway. Hotel taxiway is 60 feet wide and, while it is not lit, there are retroreflective markers on both sides of the taxiway. The gate accessing the FAS compound can open to a width of 77 feet.

- 3.5 Intersection departures are available from Hotel taxiway for Runway 12/30 and Bravo for Runway 08/26. The distances available are as follows:
- Bravo & Rwy 08 – 3125 feet remaining;
 - Bravo & Rwy 26 – 4875 feet remaining;
 - Hotel & Rwy 12 – 4265 feet remaining; and
 - Hotel & Rwy 30 – 3735 feet remaining.
- 3.6 There are several Para Jump areas used by 14 Wg Search and Rescue personnel. Jumps to those areas require a minimum protective zone of at least 1000 feet (more depending on conditions) with no spinning props/rotors or moving vehicles. The four main para areas are depicted in red font on Fig 4-3.

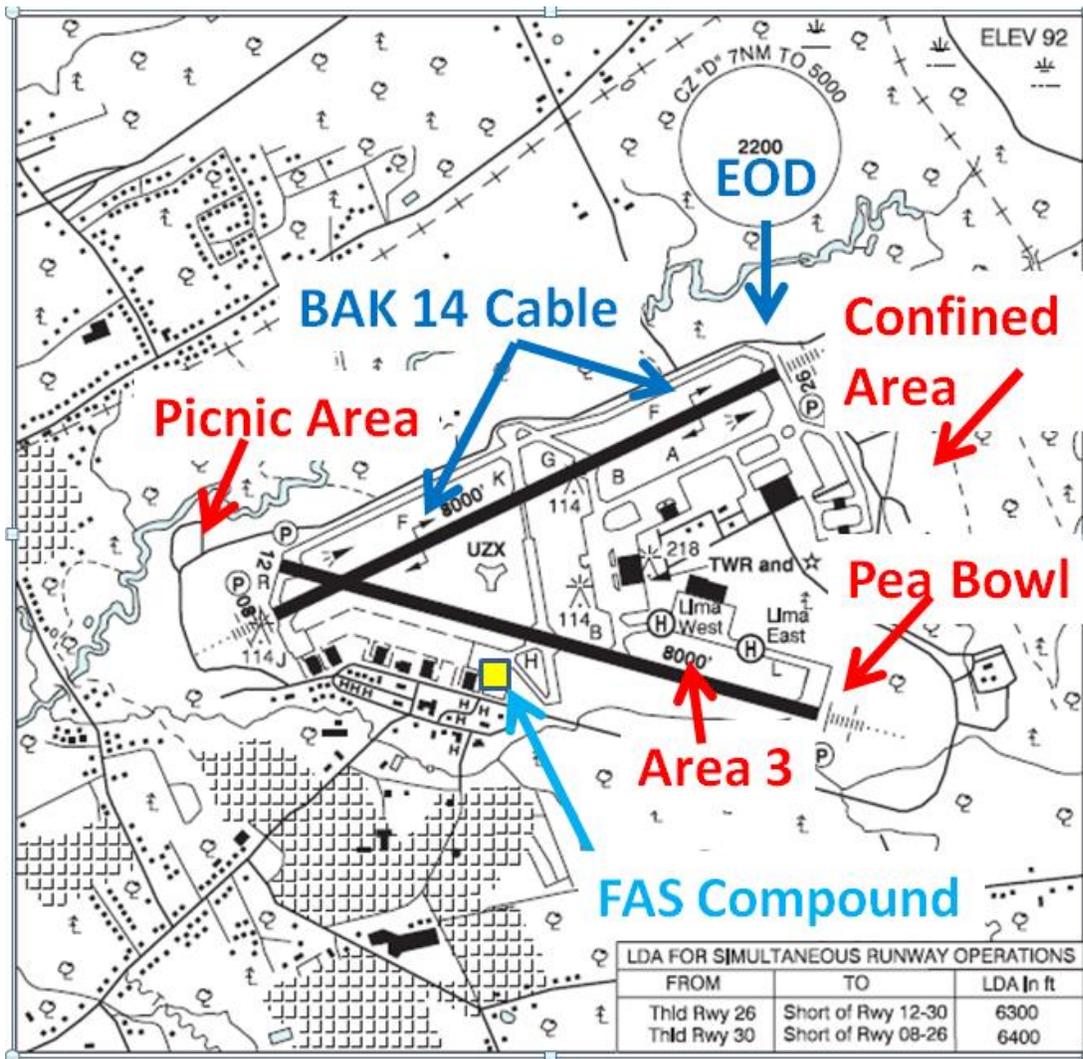


Fig 4-3

- 3.7 UAVs may operate within the Greenwood Control Zone, or just outside of it. If there is known UAV activity the ATCU will place this information on ATIS and will either geographically de-conflict aircraft from the UAVs, or have the UAVs land until conflicting aircraft are clear of the area.
- 3.8 Cloud Lake is located 7 nm south east of CYZX. 413 Rescue Squadron performs training exercises (para, hoisting, low flying, etc) there year round. During the summer there is an Air Cadet camp held there. As such Air Cadet famil flying over the area in the summer months is also very common. Extra care should be taken when operating within the vicinity of Cloud Lake.
- 3.9 14 Wg Greenwood has two BAK 14 arrestor gear that are used by high performance military aircraft in the event of an emergency. The BAK 14's are located on Rwy 08/26 and are depicted in the Canadian Flight Supplement and shown in Fig 4-3. The BAK 14 arrestor cable is normally in the "down" position in Greenwood. As such, ATC will only advise when the cable is in the "up" position. When in the down position, the cable is recessed into the pavement and poses no hazard to aircraft. In the up position, a large cable is raised across the runway, supported by 20 rubber pucks. In the event of a cable malfunction or power failure, the BAK 14 cable may raise (wholly or partially) to the up position without an indication to ATC.
- 3.10 There is an EOD area at 14 Wg located north-east of the button of Rwy 26. When the area is active, ATC will limit the use of Rwy 08/26. No aircraft will be permitted within 5 miles final of Rwy 26, no overflight below 1000 feet is permitted, no aircraft may depart Rwy 08, and the threshold of Rwy 26 will be off-set by 1500 feet for departures (6500 feet available) once an approval for detonation has been given.
- 3.11 In the event of certain military activities at 14 Wg, some portions of the airfield may become unavailable. These will be NOTAMed when able. However, the most common occurrence is during the loading of certain equipment. This will affect Rwy 08/26 and during this time no civilian aircraft will be allowed to use (arrive/depart/taxi) via Rwy 08/26 and military aircraft will have restrictions placed on their operations. ATC will inform all pilots of the times when a surface or portion of the airspace is unavailable.

4. **RESPONSIBILITIES**

- 4.1 When controlling aircraft the ATCU must follow all controlling procedures as directed in national military and civilian ATC regulations (such as MATS, CARs, ACMO, FOM) and local flying regulations (such as WFO, ATC SO), in addition to procedures detailed in this document.

- 4.2 When operating at 14 Wg or within its airspace, all pilots visiting 14 Wg that are associated with FAS will operate IAW national regulations (such as CARs) and comply with ATC clearances issued as required by national regulations. Locally based pilots that are directly associated with FAS (either FAS pilots or those basing operations out of FAS such as Flying Club operations) will operate IAW national regulations and these operating procedures.
- 4.3 IAW the ACMO, failure by either ATC or FAS pilots to operate IAW national or local regulations, or IAW these procedures may result in an Aviation Infraction being filed with 1 CAD / SO ASR. 1 CAD (SO ASR or Division Instrument Check Pilot) may file the incident with Transport Canada Enforcement for investigation. A Flight Safety Occurrence Report (CF215) may also be filed on the incident.
- 4.4 If at any time either FAS or the ATCU feels that these procedures are not providing an effective safety mechanism for operations, the procedure will be immediately reassessed and altered as required by 14 Wg to ensure the safety of operations.
- 4.5 If at any time a pilot does not fully understand an ATC clearance (or request), or if the pilot receives a clearance (or request) that they are not comfortable with, they will immediately inform ATC and request clarification or ask for an alternate clearance. Safety will always be ATC's overriding concern.
- 4.6 If FAS is planning on having a Fly-in or any other activity that may result in increased activity at 14 Wg they will give the ATCU at least 72 hours prior notification.
- 4.7 FAS pilots will follow a colour code system to report their experience levels. The colour codes are as follows:
- a. Red – a student who is not yet licensed and is not flying with an instructor;
 - b. Yellow – a newly licensed pilot with less than 75 hours PIC;
 - c. Blue – a pilot with more than 75 hours PIC; and
 - d. Green – an instructor engaged in flight training.
- 4.8 The ATCU will issue transponder codes based on the following:
- a. Flying Club activities and FAS based aircraft – 0240 to 0247; and
 - b. Solo students from a Flying Club – 0270 to 0277.
- 4.9 Between the hours of 7pm and 7am local the Greenwood Tower may cease operations. When this happens Flight Advisory operations will commence. When this scenario happens the change in operations will be either NOTAM'ed or included within the text of the Canada Flight Supplement (CFS).

- 4.10 During FA operations flight operations are conducted as per an uncontrolled airport having FSS provide both Airport Advisory Service (AAS) and Vehicle Control Service (VCS). Pilots should take notice that during FA operations clearance to taxi is mandatory as there is positive Ground control (aircraft and vehicles) being provided. Additionally a FA controller can deny take-off to an aircraft if in their opinion it would be unsafe to do so. Pilots are expected to make all radio reports as expected for an uncontrolled airport in Class D airspace. Local operating difference during FA operations are detailed in Section 5 of this document. Controllers and pilots will use the term “Greenwood Advisory” when controlling/coordinating to clearly differentiate between FA and Tower control services.

5. **PROCEDURES**

- 5.1 Aircraft operating from FAS are responsible for their own flight planning. The ATCU may accept an air filed flight plan or may deny the request based on traffic levels.
- 5.2 The ATCU will open and close all flights plans originating from or terminating at 14 Wg Greenwood. If not informed of flight plan status, pilots will confirm with the ATCU that the process has been completed.
- 5.3 Pilots will obtain ATIS (128.85) prior to calling for taxi from FAS. At times of reduced traffic, ATIS may be shortened with instructions given to contact ATC for current information. In those cases, the pilots may contact either Tower or Terminal for the airfield information.
- 5.4 Prior to calling for taxi, an aircraft departing IFR will contact Clearance Delivery on 128.025 for their IFR clearance. When calling for a clearance, they will state that they are departing from FAS. If the pilot is unable contact on 128.025, they will attempt contact on 120.6 (Terminal).
- 5.5 When an aircraft is ready for departure from FAS, the pilot will contact Ground on 133.75 for taxi instructions. At that point, ATC will open the gate. If the gate fails to open, the pilot will have to wait for taxi until the gate can be opened manually. The ATCU will contact the DWO or the Commissionaires to have someone open the gate.
- 5.6 Due to reduced visibility (weather or darkness), ATC may request a pilot report when the aircraft is “through the gate”. Receipt of this report will signify that the aircraft is clear of the gate and that the gate may then be safely closed.
- 5.7 If an aircraft requires a ground run prior to departure, the pilot will advise Ground on initial contact. Ground runs will be completed at a position on the Old Ramp at the pilot’s discretion, such that it will keep him off of taxiway Hotel and not adversely affect aircraft parked at FAS.

- 5.8 Requests for taxi will include the following information:
- a. will the flight be conducted IFR or VFR;
 - b. if IFR, state if IFR clearance has been received;
 - c. if VFR:
 - if departing enroute, state destination and direction of flight; or
 - if remaining within the local area (within 25 nm of Greenwood) state intentions; or
 - if planning on using one of the local VFR Training Areas, state which area(s); or
 - advise of their intent to fly circuits,
 - d. their colour code (see 5.8), and
 - e. if required a request for an intersection departure (see 4.6 for distances).
- 5.9 ATC will not initiate an intersection departure unless it will gain an operational advantage. ATC will not ask a Red or Yellow pilot for an intersection departure. Note that the distance remaining is only given if ATC initiates the intersection departure.
- 5.10 ATC will issue a taxi clearance that requires a hold short of Rwy 12/30. The pilot will readback this restriction. Should the pilot not readback the restriction, ATC will restate the restriction and ask for a readback.
- 5.11 Except when taxiing IFR, a taxi instruction will include the transponder code required for the flight.
- 5.12 A pilot will continue to hold short of Rwy 12/30 and report ready for departure on Tower/Advisor frequency 119.5. During FA operations the departing IFR aircraft will be issued their CV/CC timing along with their discretionary departure instructions.
- 5.13 When departing IFR the Tower/Advisor controller will either switch the aircraft to Terminal once safely airborne, or they may be switched on the ground as part of the take-off clearance. A pilot may also request the switch prior to initiating take-off.
- 5.14 All VFR circuits will be left hand circuits at 1100 feet (1500 feet at night) unless coordinated otherwise.
- 5.15 Aircraft utilizing a VFR Training Area will report established in the area. ATC will be advised of intended altitudes to be maintained while in the Training Area. Pilots will request permission to depart the Training Area and will state their intentions (such as return to Greenwood, depart enroute, etc).
- 5.16 Arriving VFR aircraft will report prior to entering the zone and will be sequenced into the circuit as required by ATC (left hand 1100'/1500' circuit unless otherwise directed).

- 5.17 A VFR aircraft shall give way to an IFR aircraft on approach to ensure that it crosses the Runway threshold before the IFR aircraft is 4 miles final or it will follow that IFR aircraft on approach. .
- 5.18 Land and Hold Short Operations are approved in Greenwood with Rwy 26 having 6300 feet remaining and Rwy 30 having 6400 feet remaining. Aircraft will be advised that LAHSOs are in effect, and will be instructed to hold short if required. LAHSOs are not available to military aircraft. ATC will not initiate LAHSOs for Red or Yellow pilots.
- 5.19 Arriving IFR aircraft will be controlled by Terminal on frequency 120.6. Communications on final may be with either Terminal (120.6), PAR (118.1), or with Tower/Advisor (119.5). All IFR approaches will be monitored and controlled by Terminal regardless of whom communications is being conducted with.
- 5.20 Requests for local IFR circuits and training will be made to Terminal on 120.6 when airborne or on 128.025 prior to taxi.
- 5.21 Upon landing, aircraft will be taxied to FAS via Hotel. Once inside the gate at FAS, pilots will operate at their discretion.
- 5.22 The gate at FAS will not be opened until the aircraft has exited the Rwy onto taxiway Hotel. Aircraft taxiing into FAS may be asked to report when “through the gate” so that it may be closed.
- 5.23 If the gate does not function, the pilot will have to remain with their aircraft. The ATCU will contact the DWO or the Commissionaires directly to have someone open the gate.
- 5.24 Helicopters operating to/from FAS will follow the rules above with the exception that all operations (taxi and flight) will be conducted on Tower frequency 119.5.
- 5.25 Helicopters will not arrive/depart directly from the FAS compound. All helicopter take-off and landings shall be from Rwy 12/30 or another approved location as directed by ATC. All helicopters shall hover taxi to/from Rwy 12/30.
- 5.26 ATC will open the FAS gate so that the helicopter will not have to hover taxi overtop of a fence. Helicopters must hover taxi through the open gate. At no time shall a helicopter be operated over the fence or over another aircraft. A “through the gate” report may be requested from the helicopter.
- 5.27 Aircraft planning to depart or arrive with no radio communications (NORDO) or with receiver only communications (RONLY) must coordinate with ATC prior to departure or arrival. Permission for this will be based on anticipated traffic and may be denied at ATC’s discretion. This will be viewed as a single, required event, and not as a standard arrival or departure procedure for that aircraft.

5.28 While it is preferred that aircraft operating from FAS have a functioning transponder, it is not mandatory. However, non-transponder equipped aircraft may expect delays based on traffic situations.

6. **EMERGENCIES**

6.1 Ground emergencies should be declared to ATC via frequency 119.5 or 133.75. This will facilitate a quicker response from 14 Wg emergency resources. 911 calls made via a cell phone are routed to a provincial call center and will then be forwarded to the 14 Wg Fire Hall.

6.2 In the event of a fuel spill, the pilot should also make an estimate of the amount of fuel spilt so that it may be passed Fire Hall who may tailor their response.

6.3 High performance aircraft may experience a hot brake situation up to 15 minutes after landing. Should someone at FAS notice a possible hot brakes situation, they will immediately inform ATC via frequency 119.5 or 133.75 or via phone (902-765-5205).

6.4 When an emergency has been declared while airborne, it is standard procedure for 14 Wg's firetrucks to follow the emergency aircraft to its parking spot, even if the emergency has been secured by the pilot.

6.5 14 Wg's Aircraft Rescue and Fire Fighting (ARFF) is level 6. If this level changes, airborne and taxiing aircraft will be advised by ATC.

6.6 NORDO and RONLY aircraft are expected to operate IAW section F of the Canada Flight Supplement.

6.7 Aircraft requiring to dump fuel as part of an emergency will be sent to Terminal on frequency 120.6 to have the procedure coordinated and implemented. This procedure may be conducted IFR or VFR.

7. **AMENDMENTS**

- 7.1 These procedures take effect on 02 Oct 2017 and remains in effect until 01 Jan 2020.
- 7.2 If these procedures need to be amended, it will be in the form of a new standard operation procedure that will be edited by the ATCU and communicated to FAS after signature by the Commanding Officer of 14 Operations Support Squadron.

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