

**Scope:** The AirSTAR Generic Transport Model program will be utilizing the Smithfield Foods, Inc., privately owned airfield for the purpose of pilot training for various Unmanned Aero Systems (UAS's). In order to support the operation safely it is required that procedures be put into place that minimize risk to personnel, personal property, and government equipment. This procedure meets the provisions for use of the airfield as endorsed and authorized by the NASA LaRC ASRB and the modified Flight Safety Release (FSR) for model flights at 31VA Aberdeen Field, Smithfield, VA.

**Purpose:** The purpose of this procedure is to provide a list of items that must be implemented as part of the standard operation of the AirSTAR GTM pilot training daily activity for Aberdeen Field. These items include the communication, preflight set-up, and flights for daily operations at the airfield.

**Communication:**

1. For planning and scheduling, the AirSTAR GTM Flight Operations will contact the Smithfield Foods Flight Dept. (Connie Hunt) by phone or e-mail to coordinate with the Smithfield Foods Flight Dept. schedule each week.

Point(s) of contact:

Flight Dept. (b) (6) 757-833-6900, email (b) (6)

Chief Pilot: (b) (6), (b) (6) email (b) (6)

Aberdeen Field Grounds: (b) (6)

LAFB Weather: 757-764-5908, Ft. Eustis Weather: 757-878-3343, or <http://usairnet.com/cgi-bin/launch/code.cgi?sta=KPHF&model=avn&state=VA&Submit=Get+Forecast>

2. Notify Army Felker Tower personnel pending operations for the day (757-878-3588 (b) (6))

3. File a Notam prior to operations according to the following procedure:

**Filing of Notams, the procedure is as follows: Leesburg Flight Service**

- 1) Call 1-866-225-7410 and press 9 to talk to the Notam individual
- 2) Notam request may be done no more than 3 days in advance but can be done up to the last minute. (However, they prefer a 1-day advance filing)
- 3) Provide the Flight Service Station briefer with the following information:
  - a) Notam for Smithfield airport (private field 31VA ABERDEEN FIELD) for UAV operations
  - b) Location of Smithfield (Radial and NM) from nearest VOR or Tacan (**Norfolk VOR 302 deg. Magnetic Heading @ 20NM DME**)
  - c) Effective Time in Zulu that we will be operating the UAS's – (**local+5hrs**)
  - d) Radius in Nautical miles that we plan to operate around Smithfield (Suggest a 2.5NM radius)
  - e) Altitude that we will be working (1500ft and below)
  - f) Record Notam number filed if available
  - g) State UNICOM frequency for monitoring and communication @ 122.75 Mhz

4. Notify Smithfield Fire Dept. POC: (b) (6) 757-357-3231

**Preflight Set-up:**

1. Pilot barriers will be utilized for peripheral protection. These must be in place prior to model take off. Pilot will remain between barriers during the entire operation of the model (take-off through landing).
2. Prior to each flight the UNICOM trainmaster radio frequency 122.75 Mhz will be monitored.
3. Prior to each flight of the day, the transmitter radio frequency will be scanned for possible radio interference.

**Flights:**

1. During model flights, the pilot will maintain model operation below 1500 feet AGL.
2. Minimum FAA cloud ceiling requirement is 2000 ft. AGL plus intended flight altitude. For example for a flight altitude of 500 feet, the minimum cloud ceiling must be 500 ft. + 2000 ft. (2500 feet). Minimum visibility for operation is 5 miles.
3. Three spotters are required during model flights; one spotter will stand behind the pilot to advise the pilot on model position around the field perimeter, model altitude, and any local aircraft activity. The spotters will communicate and direct the pilot to change model direction or altitude as necessary in order to keep the model within the visual boundaries of the flying area and altitude limit.
3. A pilot will not take off within 15 minutes of aircraft scheduled arrival or departure. During model flights, the spotters will direct the pilot to land immediately upon illumination of the landing lights.
4. The UAS vehicles listed on the next page are approved by the ASRB for Flight Safety Release.

AirSTAR / GTM Vehicles Approved for ASRB Flight Safety Release																											
Vehicle		Manufacturer		Wingspan		Wing Area		Length		Weight (Dry)		Fuel Capacity		Fuel Type		Gross Weight		Speed (mph)		Thrust : Weight		Mission		Flight Time		Wing Loading	
Identification / Owner		Name		inches		sq. inches		inches		lbs		ounces		K1, Nitro, Gas		lbs		mph		Ratio		Profile		Minutes		oz./ft2	
DVR8 Turbine Trainer / VCU		PCM Models		84.0		UNK		87.0		27.0		100		K1		32.2		150 JetCat P-80		18		0.56 GTM Autonomous		10		~50 10/19/2005	
KingCat / NASA		BVM Jets		94.0		1556		84.0		33.0		163		K1		41.5		200 JetCat P-120		27		0.65 GTM Pilot Training		12		60.0 3/10/2004	
Ultra Stick 120 / NASA		Hanger 9		76.0		1230		60.6		11.0		22		Nitro		14.0		85 OS 1.4 (3.5 HP)		~10		0.71 Pilot Training / Safety Swift		12		27.7 5/13/2003	
F100F / NASA		BVM Jets		69.0		1223		83.5		38.1		203		K1		48.6		> 200 Olympus 450		43		0.71 GTM Pilot Training		8		90.4 10/27/2004	
F12 Fury / NASA		BVM Jets		37.5		738.72		37.5		19.0		72		K1		21.6		175 JetCat P-70		16		0.74 GTM Pilot Training		8		67.5 4/21/2003	
L1011 S1 / NASA		PCM Models		85.0		1014.6		86.0		32.8		124		K1		37.9		135 JetCat P-120		27		0.71 GTM Pilot Training		12		86.1 6/10/2003	
L1011 S2 / NASA		PCM Models		85.0		1014.6		86.0		33.3		124		K1		39.7		135 JetCat P-120		27		0.68 GTM Pilot Training		12		90.2 6/10/2003	
L1011 Mod2 / NASA		PCM Models		85.0		1014.6		86.0		46.7		256		K1		60.0		135/2 ea. JetCat P-70's		32		0.53 GTM Pilot Training		12		136.3 10/12/2004	
GTM T1 / NASA		NASA		94.0		868.32		96.0		43.8		218		K1		55.0		120/2ea. AMT 180's		44		0.80 GTM Pilot Training		13		145.9 1/18/2005	
333% Edge 540 / NASA		Hanger 9		97.5		1730.6		85.0		22.5		32		Gas		25.0		60 Zenopack 80 (6 HP)		~18		0.72 AirSTAR Electronics Test		10		33.3 10/19/2005	
T33 / NASA		BVM Jets		72.0		810		69.0		22.6		81		K1		25.6		180 AMT 180 SP		22		0.86 GTM Pilot Training		8		72.9 6/10/2003	
MIG 117 / NASA, VCU		Goldberg		67.0		800		74.0		13.3		32		Nitro		15.0		74 OS 91 (2.8 HP)		~12		~.5 GTM Autonomous		20		43.2 7/13/2004	
Eurosport / VCU		Compost-ARF		66.0		UNK		94.0		24.0		120		K1		30.0		150 JetCat P-120		27		0.90 VCU Operations		12		~50 2/22/2005	
333% J3 Cub / NASA		ModelTech		132.0		2508		90.0		24.0		32		Gas		30.0		50 Zenopack 80		~18		~.5 AirSTAR Electronics Test		10		21.6 6/29/2004	
Great Planes Vuser		Great Planes		52.0		504		41.3		3.0		6		Nitro		3.4		120 OS 46		~4		>1 GTM Pilot Training		8		15.5 4/21/2003	