

# Operations Plan Standard



## 20th OSS Low Level Route Surveys

1 May 2021 – 31 August 2021

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## 1. General

- a. 20<sup>th</sup> Operations Support Squadron LLRS  
The SC Wing (SCWG) of the Civil Air Patrol (CAP) will provide aerial surveys of the 20th OSS Low Level Route as specified in this Operation Plan (OPLAN). This request is to establish the mission procedures and coordination responsibilities for the flight survey of 4 VFR Military Training Routes (MTR) to be flown by the South Carolina Wing Civil Air Patrol as an auxiliary of the United States Air Force.
- b. Incident Command Post  
N/A
- c. Primary dates & times  
The mission will be authorized to open on 1 May 2021 and close on 31 August 2021.  
Pre-positioning flights will contact the IC for approval prior to movement, only the IC or designee may release a flight for this event.
- d. Alternate dates  
N/A
- e. NHQ funding  
This mission is funded by 20<sup>th</sup> Operations Support Squadron, Shaw Air Force Base, SC. The 20th Operations Support Squadron agrees to pay any mission essential costs incurred consistent with the mission requirements. A MIPR will be submitted separately. All reimbursement procedures are handled IAW applicable CAP regulations and directives. See Appendix A for the projected cost summary.
- f. Mission Symbol  
A96
- g. CAP Project Officer/Incident Commander  
CAP Incident Commander/Program Manager:  
Mark Bailey, Lt Col, CAP  
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- h. CAP-USAF POC  
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Phone: 405-659-7126 (C)

## 2. Application

- a. Qualification requirements  
Attendees shall be active CAP members with a valid CAP ID card in their possession, and present in a correctly worn CAP uniform. All members must have completed General Emergency Services and Basic ORM and have those noted in eServices Operations Qualifications to participate in the event. Any member not having those basic qualifications will not be allowed to sign into the mission and will not be covered under CAP or USAF insurance. All Pilots will arrive with current Form 5 and 91 evaluations valid for the duration of their attendance. Personnel participating as aircrew members will either be properly qualified or be a supervised trainee in accordance with CAPR 60-3.

b. Event capacity

The IC will determine the personnel needed to support each mission event.

c. Event enrollment procedures

N/A

**3. Flight Operations**

a. Aircrew Requirements:

- i. An aircrew consists of a qualified Mission Pilot (MP) and Mission Observer (MO) and a Mission Scanner (if possible). Two MPs may be used as a crew.
- ii. Mission Pilot (MP), Mission Observer (MO) or Mission Scanner (MS) trainees are authorized to participate on this mission if under the supervision of the Skills Evaluator (SET) in that qualification.
- iii. MOs must be current, familiar with G1000 operation, and be able to assist the pilot with documentation of the route survey.

b. Aircrew Training Requirements:

- i. N/A

c. Additional Requirements

- i. If extended overwater flights are required, each occupant will wear FAA and U.S. Coast Guard or Department of Defense (DoD) approved personal flotation device (PFD). The aircraft will also contain a U.S. Coast Guard or DoD approved inflatable raft(s) of sufficient number and size to accommodate all occupants and will contain at least one pyrotechnic signaling device.
- ii. If extended overwater flights are constant wear U.S. Coast Guard or DoD approved anti-exposure or immersion suits will be worn by crew members on any pre-planned overwater flight when the water temperature is or is forecast to be 60F degrees or less. The Incident Commander (IC) may waive the requirement to wear the anti-exposure or immersion suit after reviewing appropriate safety and Risk Management (RM).

d. Mission-Specific Requirements

- i. The Department of Defense establishes and maintains a number of military training routes in the United States. The rapid proliferation of obstructions, population changes, airspace alteration and environmental considerations require periodic surveys of each route. AFI 13-201, Air Force Airspace Management, states an annual flight evaluation must be flown to validate the accuracy of aeronautical charts and encourages the use of the CAP to perform this important mission.

ii. The routes required to be flown are as follows,

Route/MOA	Date Due (Month)
VR-058	May
VR-092	May
VR-097	Aug
VR-1059	Aug

- iv. Minimum altitude for the operation is 1500 AGL. Any operation below 1500 feet AGL will only be for an emergency and at no time will the CAP aircraft descend under 500 feet AGL. Any descent below 1500 feet AGL for an emergency is at the discretion of the CAP PIC.
- v. Flight crew briefing packets will be provided to the crews for each route needing to be surveyed. The crews will be briefed by the CAP Incident Commander or designee prior to the flight. The flight crew briefing packets will also be uploaded to the sortie files in WMIRS. See Appendix B for a sample flight crew briefing packet.

a. Basic Operational Elements

i. The basic concept of operations will be divided into the following areas:

- Mission preflight planning and briefing
- Takeoff
- Route Survey
- Land
- Mission debriefing

ii. Routes may be divided up in to multiple sections based on the total distance of the route.

#### 4. Administration

a. Sortie Management

All sorties must be released in WMIRS electronically only by the IC or designee. FRO qualifications are required if you are not acting as an IC.

Sortie close-out data will be entered in WMIRS as soon after landing as practicable. Receipts must be uploaded within 48 hours or the expense will not be paid. **IMPROPERLY RELEASED SORTIES WILL NOT BE FUNDED BY THIS EVENT.**

b. Safety considerations

The IC or designee will cover all safety points upon release of the sortie, including the safe operations by aircrew and flightline personnel in the performance of their flying duties. **NO PASSENGERS WILL BE SWAPPED WITH THE AIRCRAFT ENGINE RUNNING!**

c. Mission Documentation

- i. Crews for both airplanes and vehicles are responsible to ensure fuel receipts, RM sheets, Weight and Balance sheets for airplanes and CAP Form 108 & 109's are provided to the IC for the event through WMIRS. He/she will ensure that fuel receipts, RM sheets, Weight and Balance and CAP Forms, if not on WMIRS, are captured and uploaded for each sortie for inclusion in WMIRS, in a timely manner.
- ii. Aircraft will be refueled as necessary during the day but at least at the end of each days flying and must be noted on the CAPF104 in WMIRS.
- iii. Crews will NOT be released for subsequent sorties until all paperwork required for each sortie has been submitted and approved.
- iv. PILOTS ARE RESPONSIBLE FOR OBTAINING FUEL RECEIPTS AND UPLOADED TO THE COORESPONDING SORTIE IN WMIRS. FAILING TO DO SO WITHIN 48 HOURS OF SORTIE COMPLETION MAY RESULT IN THE PILOT BEING RESPONSIBLE FOR PAYMENT OR REIMBURSEMENT OF FUEL FOR ANY SORTIE NOT PROPERLY DOCUMENTED AND REPORTED TO THE IC.

ci. SITREPS

- i. SITREPS will be provided by the Incident Commander or designee at the request of CAP-USAF, Civil Air Patrol or the Customer.

cii. Non-CAP Crew Members

- i. All non-CAP members, other than Military/National Guard, (Title 10 and Title 32) and Federal employees must complete a CAPF 70-9 prior to boarding the CAP aircraft. The CAPF 70-9 must be uploaded to the Sortie File in WMIRS. Advanced NOC approval may be required in some cases. All passengers must receive a briefing to include emergency procedures. All information for the non-CAP passenger will be listed in WMIRS.
- ii. USDA personnel assigned to 20 FW/SE are eligible to fly on missions to document potential bird hazards (i.e. landfills, roost locations, large conjugation areas, etc.) as well as conduct bird counts while on the route. This data is used to brief command and change/alternate routes if required.
- iii. USDA personnel must be submitted by the 20<sup>th</sup> OSS and listed in WMIRS in sufficient time (normally 5 days prior to mission date) for Air Force approval.

**5. Communications**

a. Requirements

Communication between the aircrews, ground personnel and IC will make use of telephone, email, text messaging or radio.

b. Procedure

The IC or designee will have and maintain communications equipment for use during the entire event. All sorties will remain in contact with the IC or his/her designee. Use TRIBLADE call as necessary.

c. Required Equipment

- i. All aircraft must have an operational VHF-FM aircraft radio.
- ii. All operational sorties (air or ground) should have at least one cell phone and that number must be available in the IC or designee.

## 6. Cadet Participation

No cadets are expected to be participating in this mission unless they are over 18 years old and aircrew qualified.

## 7. Safety

- a. ORM forms will be used at all levels of the event:
  - i. Operational Air Sorties – ORM must be completed in WMIRS as noted in Section 5, subsection i above.
  - ii. Operational Ground Sorties IF necessary– Hazards will be documented on the sortie briefing section within WMIRS.
- b. All CAP operations involve some degree of risk. Participants must be alert and careful when operating aircraft or ground vehicles.
- c. The IC will continually monitor all operations to ensure safety is not just talked about, but actually done correctly.
- d. Any mishaps that occur on the mission will be reported IAW CAPR 160-2.

## 8. Staff Requirements

- a. Staff members will be fully qualified or will be supervised by qualified members.
- b. The following Incident Command staff are required:
  - i. Incident Commander (IC)
  - ii. FRO
  - iii. Any additional support staff as required by IC, specifically in the area of communications
- c. Standby aircrew and members may perform other duties to assist and may include but not limited to: backfilling in the case of illness, a second instrument pilot for night overwater operations, relieve other crew members at the site, crew transport, and general support.

## 9. Uniform Requirements

All attendees must be in an authorized and complete **CAP** uniform worn in accordance with CAP regulations. Each member's role should dictate the appropriate uniform. Mission Staff may be in a service or utility uniform depending on the level of contact expected with external participants or media.

## 10. Facilities

N/A

## 11. Logistics

- a. Billeting

No overnight accommodations are necessary. In the unlikely event a crew does need to remain overnight (RON) the IC must be notified immediately. The IC will then make the request to the NOC for approval.

b. Medical

Local medical facilities and by emergency number 911.

i. Ambulatory patients may be transported to facilities by CAP vehicle. All other transport should be arranged by calling 911.

ii. Police and Fire

Local facilities and by emergency number is 911.

c. Per Diem

IAW 173-3 the customer must approve GSA.gov rates in advance or reimbursement will be standard CAP rates.

**12. Military Support Requirements**

N/A

**13. Public Affairs**

a. The Public Information Officer (PIO) for this mission will be assigned by the IC or designee.

**14. Contingencies & Emergency Services Missions**

Any event may be suspended or terminated and CAP resources reassigned, at the direction of an active Emergency Services Mission Incident Commander, SC Wing/CC, or Higher Headquarters CAP or CAP-USAF direction; otherwise, the event is expected to continue as planned.

# APPENDIX A

## Projected Cost Analysis

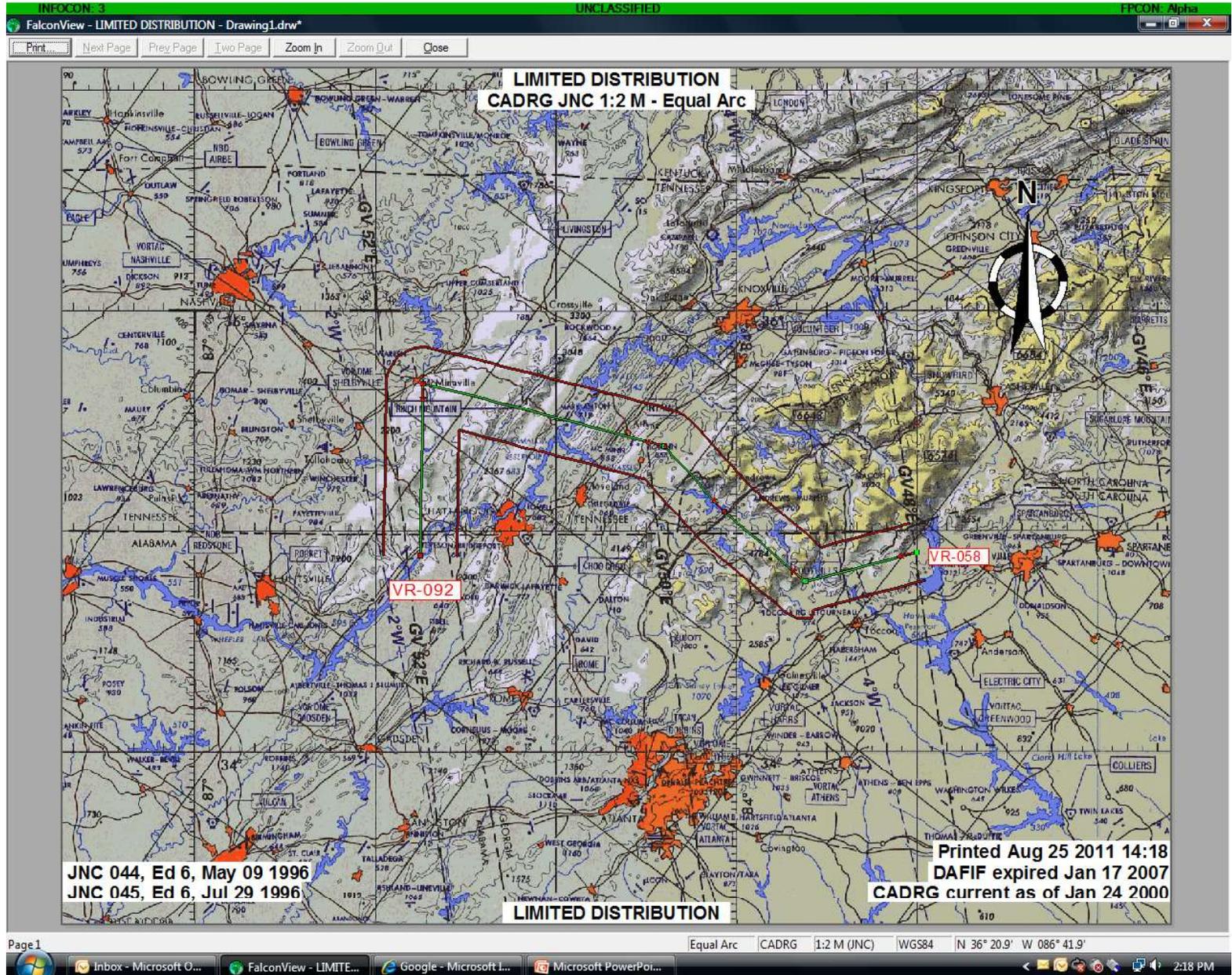
Router/MOA	Month Due	LL Route Distance	Number of Passes	Ferry Distance	Speed (MPH)	Flight Time	Ferry Time	Average Aircraft Cost/hr	Total Cost
VR-058	May	515	2 ea	80	120	3	1	\$ 155.00	\$ 620
VR-092	May	515	2 ea	80	120	3	1	\$ 155.00	\$ 620
VR-097	August	200	2 ea	Variable	120	7	3	\$ 155.00	\$ 1550
VR-1059	August	265	2 ea	Variable	120	10	3	\$ 155.00	\$ 2015
<b>TOTAL</b>									<b>\$ 4805</b>

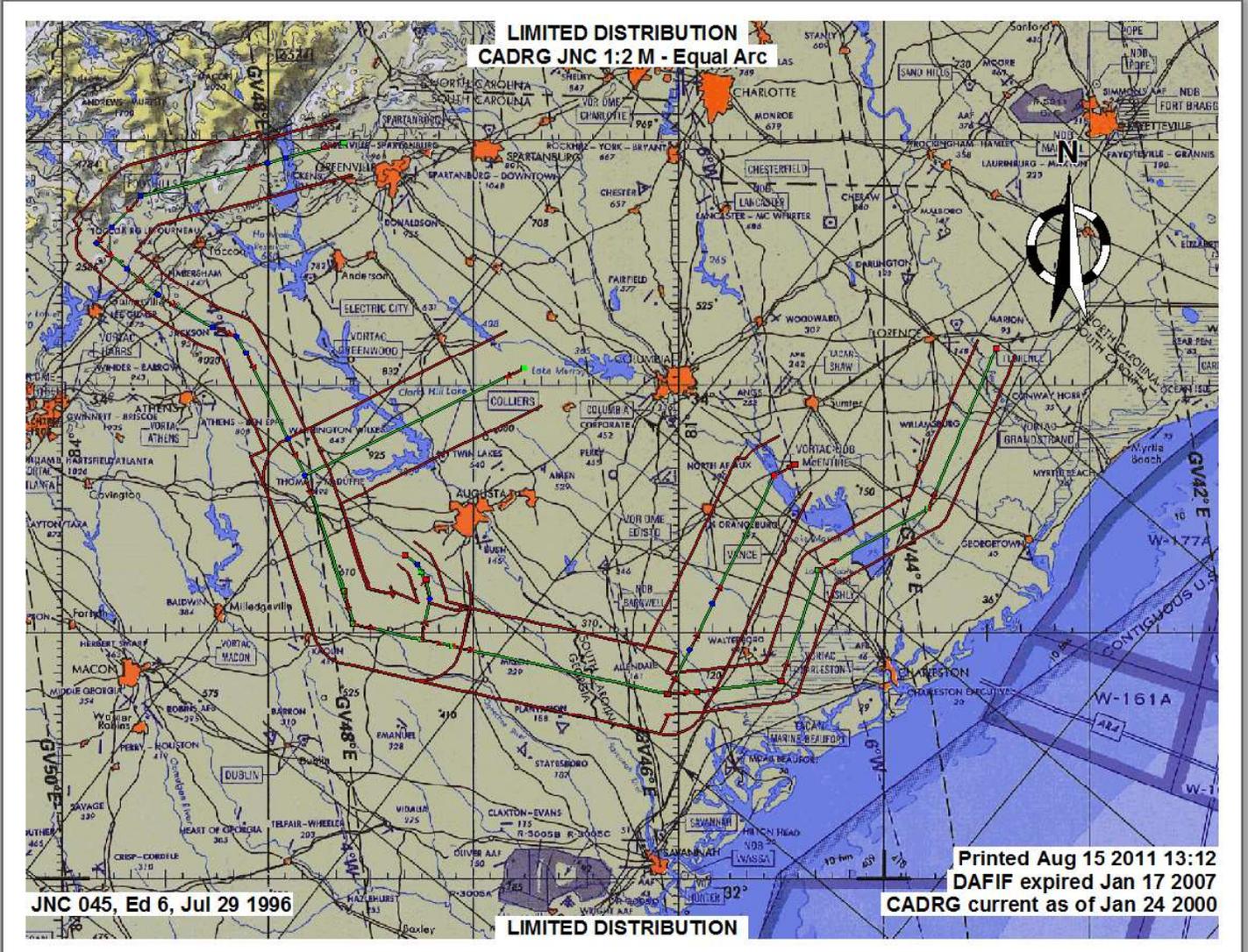
\*\*\* NOTE THE ABOVE COST/HOUR AND FERRY DISTANCES ARE ESTIMATES\*\*\*

# APPENDIX B

## Low Level Route Survey Crew Briefing Packet

VR-058 & VR-092





**VR-058**

**ORIGINATING ACTIVITY:** 20 OSS/OSOA, Shaw AFB, SC  
29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN  
965-4804.

**SCHEDULING ACTIVITY:** 20 OSS/OSOS, Shaw AFB, SC  
29152 DSN 965-1118/1119, C803-895-1118/1119.

**HOURS OF OPERATION:** Continuous ( Jan, Mar, May, Jul,  
Sep, Nov) VR-092 reverse direction other months

**ROUTE DESCRIPTION:**

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	SPA 264/54	N34°54.00' W83°00.00'
01 AGL B 80 MSL to B	SPA	262/85	N34°46.00' W83°37.00'
01 AGL B 80 MSL to C	GQO	081/54	N35°05.00' W84°04.00'
01 AGL B 80 MSL to D	GQO	054/45	N35°23.00' W84°24.00'
01 AGL B 50 MSL to E	GQO	325/51	N35°40.00' W85°44.00'
01 AGL B 50 MSL to F	GQO	260/30	N34°53.00' W85°45.00'

**TERRAIN FOLLOWING OPERATIONS:** Authorized  
entire route.

**ROUTE WIDTH** - 8 NM either side of centerline from A to B;  
10 NM either side of centerline from B to F.

**Special Operating Procedures:**

- (1) Alternate Entry Point: B and D.
- (2) Alternate Exit Point: C, D and E.
- (3) WARNING: Avoid Nuclear Power Oconee, SC (N34-47-05 W082-53-09) avoid by 1 NM/do not overfly.
- (4) CAUTION: Numerous power lines along routes above 100' AGL.
- (5) 14 towers:
  - (a) 250' AGL N34.57.91 W83.49.78;
  - (b) 250' AGL N34.57.17 W84.02.62;
  - (c) 250' AGL N35.08.91 W84.10.54;
  - (d) 350' AGL N35.19.5 W84.27.05;
  - (e) 300' AGL N35.34.84 W84.58.4;
  - (f) 250' AGL N34.54.77 W85.46.42;
  - (g) 300' AGL N34.55.33 W83.02.82;
  - (h) 400' AGL N34.57.86 W83.49.43;
  - (i) 500' AGL N35.30.99 W84.46.45;
  - (j) 250' AGL N34.47.55 W83.14.41;
  - (k) 250' AGL N34.47.82 W83.51.77;
  - (l) 250' AGL N35.28.74 W85.13.92;
  - (m) 250' AGL N34.50.82 W83.29.85;
  - (n) 200' AGL N34.55.92 W83.02.41.
- (6) Avoid 3 noise sensitive areas:
  - (a) N34-42.2 W83-38.1, avoid by 1500' AGL/1 NM.
  - (b) N34-45.9 W83-37.8, avoid by 1000' AGL/1 NM.
  - (c) AVOID Clayton, GA at N34-52.8 W83-24.0, by 1500' AGL/2 NM.
- (7) Congressional noise sensitive area, N35-05 W84-04, avoid by 1500' AGL/5 NM.

- (8) Congressional noise sensitive area, Coker Creek, TN, N35-16 W84-17, avoid by 1000' AGL/1 NM.
- (9) CAUTION; 3000' runway at Tellico Plains, TN, N35.22.92 W84.18.248, intensive student training, avoid by 1500' AGL/3 NM.
- (10) CAUTION: Chilhowee Glider Port N35.13.8 W84.35.0, numerous glider activities, SFC-5000' within 5 NM.
- (11) Avoid: Congressional noise sensitive area, Athens, TN, N35-26.5 W84-36.0, avoid by 1500' AGL/ 1 NM.
- (12) Power Plant N35-36.1 W84-47.5, avoid by 1000' AGL/1 NM.
- (13) Avoid: Chlorine Gas Plant N35-17.5 W84-45.0, avoid by 1000' AGL/1 NM.
- (14) Avoid; Noise sensitive area, Dayton, TN, N35-28.0 W85-01.0, avoid by 1500' AGL/1 NM.
- (15) CAUTION: Powerlines overhanging valley N35-33.0 W85-03.0.
- (16) CAUTION: VR-1052 same direction B to F and crosses VR-058 between points B-C, D-E, and E-F (de-conflict DSN 459-2735).
- (17) CAUTION: VR-1055 crosses right to left between C to D (de-conflict DSN 459-2735).
- (18) CAUTION: Hang gliding activity N35-06 W85-30, to N35-23 W85-20.5 to N35-01 W85-23 to N34-46 W85-34 to N35-12.5 W85-32.5.
- (19) CAUTION: IR-078 same direction E to F (de-conflict DSN 459-2735).
- (20) CAUTION: uncharted airfields - avoid by 1000' AGL/2 NM.  
 (a) Dirt Strip N35.10 W85.49;  
 (b) 3000' Hard surface Rwy N35.15.2 W85.23;
- (21) CAUTION: Extensive seaplane activity, surface to 1400' at Rock Island, TN, N35-48.0 W85-37.0.
- (22) Avoid: Steam Plant N34-53 W85-45, avoid by 1000' AGL/1 NM.
- (23) Presidential noise sensitive area: Monteagle, TN, N35-16.0 W85-50.0, avoid by 1500' AGL/3 NM.
- (24) After last Exit Point F, above 10,000' MSL contact Atlanta ARTCC (eastbound) on 342.425 or 33.1 or Memphis Center (westbound) on 323.12 or 128.15. Below 10,000' MSL contact Chattanooga Approach on 321.2/379.1 or 125.1 for further IFR clearance.
- (25) Avoid noise sensitive area: Peachtree Community N35-05.7 W83-57.0, avoid by 1500' AGL/1 NM.
- (26) Avoid the following environmental sensitive areas (endangered bats) by 500' vertically or 1000' horizontally unless operationally necessary (N35-33.2 W84-47.5), (N35-24.5 W85-00.8), (N35-32.8 W85-40.3), (N35-15.5 W85-52.3), (N34-59.4 W85-36.6).
- (27) Avoid: Noise sensitive area N35-35.5 W85-12.0 (SE of Pikeville, TN) avoid by 1000' AGL/1 NM.
- (28) Avoid: Congressional (Extremely) noise sensitive area: Ivy Log Mountain N34-55.0 W83-58.7. Minimum altitude 4200' MSL within 2 NM.
- (29) Make entry time plus or minus 5 minutes or reschedule.
- (30) Unpublished towers found by route surveys 200' AGL and above are listed in this SOP.
- (31) Be alert for hot air balloons operating from sfc to 12,000' MSL within 10 NM of N34-42.0 W83-44.0.

**FSS Within 100 NM Radius:**

ANB, AND, BNA, MCN

**VR-092**

**ORIGINATING ACTIVITY:** 20 OSS/OSOA, Shaw AFB, SC  
29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN  
965-4804.

**SCHEDULING ACTIVITY:** 20 OSS/OSOS, Shaw AFB, SC  
29152 Duty hrs DSN 965-1118/1119, C803-895-1118/1119.

**HOURS OF OPERATION:** Continuous (Feb, Apr, Jun, Aug,  
Oct, Dec) VR-058 opposite direction other months

**ROUTE DESCRIPTION:**

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	GQO 260/30	N34°53.00' W85°45.00'
01 AGL B 50 MSL to B		GQO 325/51	N35°40.00' W85°44.00'
01 AGL B 50 MSL to C		GQO 054/45	N35°23.00' W84°24.00'
01 AGL B 80 MSL to D		GQO 081/54	N35°05.00' W84°04.00'
01 AGL B 80 MSL to E		SPA 262/85	N34°46.00' W83°37.00'
01 AGL B 80 MSL to F		SPA264/54	N34°54.00' W83°00.00'

**TERRAIN FOLLOWING OPERATIONS:** Authorized  
entire route.

**ROUTE WIDTH** - 10 NM either side of centerline from A to  
E; 8 NM either side of centerline from E to F.

**Special Operating Procedures:**

- (1) Alternate Entry Points: B and D.
- (2) Alternate Exit Points: C, D and E.
- (3) CAUTION: Numerous power lines along route above 100' AGL.
- (4) Avoid by 1500' AGL/3 NM: Monteagle, TN N35-16.0 W85-50.0. Residential noise sensitive area.
- (5) 14 Towers:
  - (a) 250' AGL N34.57.91 W83.49.78;
  - (b) 250' AGL N34.57.17 W84.02.62;
  - (c) 250' AGL N35.08.91 W84.10.54;
  - (d) 350' AGL N35.19.5 W84.27.05;
  - (e) 300' AGL N35.34.84 W84.58.4;
  - (f) 250' AGL N34.54.77 W85.46.42;
  - (g) 300' AGL N34.55.33 W83.02.82;
  - (h) 400' AGL N37.57.86 W83.49.43;
  - (i) 500' AGL N35.30.99 W84.46.45;
  - (j) 250' AGL N34.47.55 W83.14.41;
  - (k) 250' AGL N34.47.82 W83.51.77;
  - (l) 250' AGL N35.28.74 W85.13.92;
  - (m) 250' AGL N34.50.82 W83.29.85;
  - (n) 200' AGL N34.55.92 W83.02.41.
- (6) CAUTION: Extensive seaplane activity, SFC to 1400' at Rock Island, TN N35-48.0 W85-37.0.
- (7) CAUTION: 2 Uncharted airfields - Avoid by 1000' AGL/2NM:
  - (a) Dirt Strip N35.10 W85.49;
  - (b) 3000' hard surface rwy N35.15.2 W85.23.0.
- (8) CAUTION: IR-077 same direction A to B (de-conflict with DSN 459-2735).
- (9) CAUTION: Hang gliding activity N35-06.0 W85-30.0; N35-23.0 W85-20.5; N35-01.0 W85-23.0; to N34-46.0 W85-34.0; N35-12.5 W85-32.5.
- (10) CAUTION: VR-1052 opposite direction between points A-E, VR-1055 crosses left to right between pts C to D (de-conflict with DSN 459-2735).
- (11) CAUTION: VR-1056 same direction A to E (de-conflict with DSN 459-2735).
- (12) CAUTION: Power lines overhanging valley N35-33.0 W85-03.0.

- (13) Avoid noise sensitive area by 1500' AGL/1 NM, Dayton, TN N35-28.0 W85-01.0.
- (14) Avoid chlorine gas plant by 1000' AGL/1 NM, N35-17.5 W84-45.0.
- (15) Avoid power plant by 1000' AGL/ 1 NM, N35-36.1 W84-47.5.
- (16) Avoid congressional noise sensitive area by 1500' AGL/1 NM, Athens, TN, N35-26.5 W84-36.0,
- (17) CAUTION: Chilhowee Glider Port N35-13.8 W84-35.0, numerous glider activities, SFC-5000' within 5 NM.
- (18) CAUTION: 3000' runway airport at Telico Plains, TN, N35-22.8 W84-18.0, intensive student training, avoid by 1500'.
- (19) Avoid by 1000' AGL/1 NM Coker Creek, TN, N35-16.0 W84-17.0 Congressional noise sensitive area.
- (20) Avoid by 1500' AGL/5 NM N35-05.0 W84-04.0, Congressional noise sensitive area.
- (21) Avoid by 1500' AGL/1 NM noise sensitive area, N34-42.2 W83-38.1.
- (22) Avoid 9 towers:
- (a) 250' AGL N34.57.91 W83.49.78;
  - (b) 250' AGL N34.57.17 W84.02.62;
  - (c) 250' AGL N35.08.91 W84.10.54;
  - (d) 350' AGL N35.19.5 W84.27.05;
  - (e) 300' AGL N35.34.84 W84.58.4;
  - (f) 250' AGL N34.54.77 W85.46.42;
  - (g) 300' AGL N34.55.33 W83.02.82;
  - (h) 400' AGL N34.57.86 W83.49.43;
  - (i) 500' AGL N35.30.99 W84.46.45
- (23) WARNING, avoid by 1 NM Nuclear Power Plant, Oconee, SC N34-47.5 W82-53.9. Do not over-fly.
- (24) Noise Sensitive Areas:
- (a) Peachtree Community N35-05.7 W83-57.0, avoid by 1500' AGL/1 NM;
  - (b) Clayton, GA N34-52.8 W83-24.0, avoid by 1500' AGL/2 NM.
- (25) Avoid the following environmentally sensitive areas (endangered bats) by 500' vertically or 1000' horizontally unless operationally necessary: (N35-33.2 W84-47.5), (N35-32.8 W85-40.3), (N34-59.4 W85-36.6), (N35-24.5 W85-00.8), (N35-15.5 W85 52.3).
- (26) Avoid two noise sensitive areas:
- (a) By 1000' AGL/1 NM, N34-45.9 W83-37.8.
  - (b) By 1000' AGL/1 NM, N35-35.5 W85-12.0 (SE of Pikeville, TN).
- (27) Avoid Ivy Log Mountain, N34-55.0 W83-58.7, minimum altitude 4200' MSL within 2 NM. Congressional (Extremely) noise sensitive area:
- (28) Make entry time plus or minus 5 minutes or reschedule. Unpublished towers found by route surveys 200' AGL and above are listed in this SOP.
- (29) Be alert for hot air balloons operating from Sfc to 12,000' MSL within 10 NM of N34-42.0 W83-44.0.

**FSS Within 100 NM Radius:**  
 ANB, AND, BNA, HUA, MCN

**VR-097**

**ORIGINATING ACTIVITY:** 20 OSS/OSOA, Shaw AFB, SC  
29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN  
965-4804.

**SCHEDULING ACTIVITY:** 20 OSS/OSOS, Shaw AFB, SC  
29152, Duty hrs DSN 965-1118/1119, C803-895-1118/1119.

**HOURS OF OPERATION:** 0600-2400 local daily

**ROUTE DESCRIPTION:**

<b>Altitude Data</b>	<b>Pt</b>	<b>Fac/Rad/Dist</b>	<b>Lat/Long</b>
As assigned to	A	SUG 217/31	N34°58.80' W82°37.80'
30 MSL B 80 MSL to B		SUG 229/43	N34°55.20' W82°54.50'
01 AGL B 80 MSL to C		SPA 264/54	N34°54.00' W83°00.00'
01 AGL B 80 MSL to D		SPA 262/85	N34°46.00' W83°37.00'
01 AGL B 80 MSL to E		ODF 261/23	N34°38.20' W83°45.60'
01 AGL B 80 MSL to F		ODF 255/27	N34°34.50' W83°49.90'
01 AGL B 80 MSL to G		AHN 330/36	N34°28.30' W83°41.00'
01 AGL B 40 MSL to H		AHN 338/27	N34°22.00' W83°32.00'
01 AGL B 40 MSL to I		AHN 010/17	N34°14.00' W83°16.00'
01 AGL B 40 MSL to J		AHN 030/17	N34°12.00' W83°09.00'
01 AGL B 40 MSL to K		AHN 045/16	N34°07.90' W83°06.20'
01 AGL B 15 AGL to L		AHN 115/23	N33°47.00' W82°54.00'
01 AGL B 15 AGL to LL		DBN 006/64	N33°38.00' W82°49.00'
01 AGL B 15 AGL to M		DBN 021/38	N33°09.92' W82°37.48'
01 AGL B 15 AGL to N		DBN 029/31	N33°02.02' W82°34.98'
01 AGL B 15 AGL to O		DBN 055/38	N32°58.22' W82°14.98'
01 AGL B 15 AGL to P		DBN 063/43	N32°56.52' W82°05.98'
01 AGL B 15 AGL to Q		VAN 221/53	N32°45.00' W81°03.00'
01 AGL B 15 AGL to R		VAN 223/41	N32°55.50' W80°56.60'
01 AGL B 40 MSL to RR		VAN 228/29	N33°06.90' W80°50.00'
01 AGL B 40 MSL to S		VAN 342/10	N33°38.00' W80°32.00'
01 AGL B 40 MSL to T		VAN 010/12	N33°40.80' W80°26.00'
01 AGL B 15 AGL to		DBN 055/38	N32°58.22' W82°14.98'
Alternate Exit: O			
01 AGL B 15 AGL to O1		DBN 080/137	N33°08.02' W82°12.48'
01 AGL B 15 AGL to O2		DBN 043/49	N33°12.72' W82°13.48'

**TERRAIN FOLLOWING OPERATIONS:** Authorized  
entire route.

**ROUTE WIDTH** - 8 NM left and 6 NM right of centerline from A to C; 8 NM either side of centerline from C to F; 5 NM either side of centerline from F to J; 5 NM left and 6 NM right of centerline from J to L; 6 NM left and 10 NM right of centerline from L to N; 9 NM left and 10 NM right of centerline from N to P; 10 NM either side of centerline from P to S; 8 NM either side of centerline from S to T.

**Special Operating Procedures:**

- (1) Alternate Entry: M, N, O and P.
- (2) Alternate Exit: M, N, O, O2, P, Q and S.
- (3) Tie-In FSS Anderson (AND): Maintain 3000' MSL until passing Pt. B.
- (4) CAUTION: IR-22 crosses between Points A to B, 9000'-10,000' MSL.
- (5) WARNING/AVOID: Nuclear Power Plant, Oconee, SC, 34-47.5N 82-53.9W, avoid by 1 NM, do not overfly.
- (6) CAUTION: Towers:
  - (a) 34-57.19N 82-50.12W 300' AGL;
  - (b) 34-55.53N 82-56.74W 250' AGL;
  - (c) 34-54.07N 82-58.51W 300' AGL;
  - (d) 34-52.17N 83-09.07W 300' AGL;
  - (e) 32-49N 81-58.8W 400' AGL;
  - (f) 35-53N 83-04.4W 400' AGL;
  - (g) 34-33.82N 83-46.82W 400' AGL;
  - (h) 32-49.11N 81-56.93W 430' AGL.
- (7) Six Noise Sensitive Areas:
  - (a) N34-42.2 W83-38.1, avoid by 1500' AGL/1 NM;
  - (b) Town of Clayton, GA N34-52.8 W83-24.0, avoid overflight of city and adjacent build-up areas by 1500' AGL/2 NM;
  - (c) Town of Carnesville, GA N34-19.5 W83-18.2, avoid by 1500' AGL/1 NM;
  - (d) Town of Ila, GA N34-11.0 W83-16.5, avoid by 1500' AGL/1 NM;
  - (e) 34-20N 83-30W Chicken farm, avoid by 1 NM/1500' AGL;
  - (f) 33-03.55N 82-09.58W Horse farm, avoid by 1 NM/1500' AGL;
  - (g) 34-36.52N 83-40W, Avoid by 1 NM/1500' AGL.
- (8) Fly at or above 1000' AGL between D and G for numerous noise sensitive areas.
- (9) Avoid: Four towers N34-52.73 W83-05.69 300' AGL.
- (10) CAUTION: Multiple Victor Airways converge at Athens VORTAC between Pts K and L. Exercise increased vigilance while transiting this area. Expect increased traffic between 1 Sep and 30 Nov.
- (11) CAUTION: Noise sensitive area, Comer, GA, N34-03.8 W83-07.5. Avoid by flying east of route center line.
- (12) CAUTION: Traffic crosses Pt L and 2200' MSL then descends into Washington-Wilkes County Airport, GA, N33-46.6 W82-48.9.
- (13) CAUTION: Towers:
  - (a) 34-14.7N 83-07W 300' AGL;
  - (b) 33-59.63N 82-58.07W 350' AGL.
- (14) Congressional noise sensitive area: Washington, GA N33-44.1 W82-44.5, avoid by 1500' AGL or 1 NM.
- (15) Use of O-O2 authorized only when scheduled to operate in BULLDOG D MOA and R-3004.
- (16) AVOID: Stork Farm N32-51.9 W82-02.0, avoid by 1500' AGL/1 NM.
- (17) CAUTION: VR-058 same direction Pt A to D; VR-092 opposite direction to Pts C and D. VR-1059 same direction Pt L to Q (Deconflicted by 20 OSS). VR-088 same direction Pt RR to T (Deconflict with 4 OSS DSN 722-2129).
- (18) CAUTION: VR-097 transits BULLDOG MOA (deconflict with 20 OSS/OSOS). When booking VR-097, aircrews should include delay time in Bulldog MOA as applicable. Route users make call IN THE BLIND prior to Point M on UHF frequency 343.75 when transiting BULLDOG MOA airspace.
- (19) CAUTION: VR-1004 (L-K) crosses right to left west of Pt N (Deconflict DSN 942-2004).

- (20) The following restrictions are located in Bulldog D: AVOID:  
At N33-16.0 W82-17.2 1465' AGL/(1900' MSL), avoid by 1 NM. AVOID: Noise sensitive area, pond and farm at N33-17.7 W82-16.8, avoid by 1500' AGL/2 NM.
- (21) CAUTION: 14 Towers with cables stretched between centered at N32-40.7 W81-08.1; avoid by 1 NM. Maximum height up to 500' AGL.
- (22) CAUTION: Powerline 300' AGL, crosses N to S between Pts P and Q, N33-02.5 W81-44.0 to N32-45.0 W81-38.5.
- (23) AVOID: Permanently manned fire tower, N32-50.7 W81-18.2 by at least 500'.
- (24) AVOID: BEAUFORT 3 MOA or deconflict (DSN 335-7304).
- (25) AVOID: Two congressional noise sensitive areas:  
(a) N33-47.0 W80-36.8 Avoid by 1000' AGL/1 NM;  
(b) N34-14.5 W83-22.4 Avoid by 1500' AGL/1 NM.
- (26) AVOID: Peregrine Falcon nesting area (endangered species): N35-03.2 W82-42.0 Avoid by 1500' above tree/cliff height and 1 NM (15 Feb thru 15 Jul).
- (27) AVOID: Two noise sensitive areas by 1000' AGL/1 NM:  
(a) N34-45.9 W83-46.5;  
(b) N33-02.1 W82-14.9 (Vidette, GA).
- (28) CAUTION: SR-166 crosses route from N33-23.0 W81-08.0 to N33-17.0 W80-31.0.
- (29) AVOID: Santee National Wildlife Refuge (Lake Marion), avoid by 2200' AGL.
- (30) CAUTION: Aircraft holding at Rimini Bridge for R-6002 (Entry Pt S).
- (31) CAUTION: When exiting Pt T for opposite direction traffic on VR-087.
- (32) AVOID: R-6002 when active.
- (33) AVOID: Active private grass strip (Gorton) N32-49.5 W81-21.5, avoid by 1000' AGL/3 NM.
- (34) AVOID: Four noise sensitive areas by 1000' AGL/1 NM:  
(a) Structure being used as a tactical target N33-00.5 W82-41.5;  
(b) Dairy farm N32-49.9 W81-52.5;  
(c) Emu Ranch N34-01.5 W82-57.5;  
(d) Farm N32-51.1 W81-40.5.
- (35) CAUTION: Towers:  
(a) N32-47.96 W81-01.65 250' AGL;  
(b) N33-20.54 W80-39.31 250' AGL;  
(c) N32-54 W81-03 250' AGL.
- (36) Make entry time plus or minus 5 minutes or reschedule. Unpublished towers found by route surveys 200' AGL and above are listed in this SOP.
- (37) CAUTION: Bird Activity (Landfills) at:  
(a) N34-32.22 W83-25.03;  
(b) N33-09 W82-45.7;  
(c) N33-04.84 W82-25.12;  
(d) 34-21.22N 83-25.03W.
- (38) CAUTION: Grass airstrips:  
(a) N32-50.7 W81-38.3 Rwy 05/27 approx 4000';  
(b) N32- 58.91 W82-07-08;  
(c) N32-55.07 W80-53.11 aligned N/S approx 2000'.
- (39) AVOID: Seven towers:  
(a) 250' AGL (700' MSL) N33-28.2 W80-47.2;  
(b) 250' AGL (800' MSL) N33-04.1 W82-07.4;  
(c) 200' AGL (600' MSL) N32-57.9 W81-58.7;  
(d) 200' AGL (600' MSL) N33-27.6 W80-43.9;  
(e) 200' AGL (600' MSL) N33-28.7 W80-45.9;  
(f) 300' AGL (1300' MSL) N33-30.9 W82-55.4;  
(g) 500' AGL 32-54.55N 80-53.39W.

**FSS Within 100 NM Radius:**

ANB, AND, MCN

**VR-1059**

**ORIGINATING ACTIVITY:** 20 OSS/OSOA, Shaw AFB, SC  
29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN  
965-4804.

**SCHEDULING ACTIVITY:** 20 OSS/OSOS, Shaw AFB, SC  
29152 Duty hrs DSN 965-1118/1119, C803-895-1118/1119.

**HOURS OF OPERATION:** Continuous

**ROUTE DESCRIPTION:**

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	CAE 292/37	N34°04.00' W81°44.98'
01 AGL B 15 AGL to B		AHN 126/32	N33°38.00' W82°49.00'
01 AGL B 15 AGL to C		DBN 029/31	N33°02.02' W82°34.98'
01 AGL B 15 AGL to D		DBN 055/38	N32°58.22' W82°14.98'
01 AGL B 15 AGL to E		DBN 063/43	N32°56.52' W82°05.98'
01 AGL B 15 AGL to F		VAN 221/53	N32°45.00' W81°02.98'
01 AGL B 15 AGL to G		VAN 214/49	N32°45.50' W80°54.50'
01 AGL B 15 AGL to H		VAN 190/40	N32°48.00' W80°30.00'
01 AGL B 15 AGL to I		VAN 160/15	N33°15.00' W80°19.00'
01 AGL B 15 AGL to J		VAN 093/33	N33°30.00' W79°47.00'
01 AGL B 15 AGL to K		FLO 119/11	N34°09.00' W79°27.00'
01 AGL B 15 AGL to D		DBN 055/38	N32°58.22' W82°14.98'

Alternate Exit/Entry:

D			
01 AGL B 15 AGL to D1		DBN 047/46	N33°08.02' W82°12.48'
01 AGL B 15 AGL to D2		DBN 041/50	N33°14.52' W82°15.08'
01 AGL B 15 AGL to D3		DBN 038/51	N33°16.52' W82°16.18'
01 AGL B 15 AGL to D4		DBN 034/52	N33°18.82' W82°19.78'

**TERRAIN FOLLOWING OPERATIONS:** Authorized  
entire route.

**ROUTE WIDTH** - 10 NM either side of centerline from A to B; 10 NM right and 6 NM left of centerline from B to C; 10 NM right and 9 NM left of centerline from C to E; 10 NM either side of centerline from E to F; 5 NM either side of centerline from F to K; For R-3004 ingress from D to D4, 3 NM left of centerline, 4 NM right of centerline

**Special Operating Procedures:**

- (1) Alternate Entry: C, D, E, F, I, J and D2. D2 authorized for re-entry to R-3004 only.
- (2) Alternate Exit: C, D, E, F, G, H, I and J.
- (3) Make a call IN THE BLIND on 287.1 passing Point J to advise aircraft working Gamecock C. Use CAUTION exiting Point J for aircraft in Gamecock C 100' AGL and above.
- (4) Congressional Noise Sensitive Area, Washington, GA. N33-44-00 W82-44-30. Minimum altitude is 1500' AGL.
- (5) Wildlife sanctuary at N32-42-00 W80-44-00. Avoid by 1500'/5 NM.
- (6) Use of D-D4 authorized only when scheduled to operate in Bulldog D MOA and R-3004.
- (7) VR-088 crosses right to left Point A to B (deconflict DSN 722-2129).

- (8) CAUTION: Bird activity (landfills) at  
(a) 33-09N 82-45.7W;  
(b) 33-04.84N 82-25.12W;  
(c) 33-07.67N 80-21.56W;  
(d) 33-10.09N 80-22.55W
- (9) CAUTION: VR-1059 transits Bulldog MOA. When booking VR-1059, aircrews should include delay time in Bulldog A MOA as applicable.
- (10) CAUTION: IR-018 crosses left to right from Point E to F (deconflict DSN 942-2004).
- (11) CAUTION: VR-1040/1041 opposite direction from Point H to I (deconflict DSN 582-4040).
- (12) Avoid Stork Rookery protection area at N32-45.8 W80-28.7 by 1500'AGL/1 NM.
- (13) Avoid: Tower 1495' AGL (1900' MSL) at N33-16.0 W82-17.2 and Noise Sensitive Area (pond and farm) at N33-17.7 W82-16.8. Avoid by 1500' AGL (2000' MSL) 2 NM.
- (14) CAUTION: Towers:  
(a) 32-57.33N 81-59.06W 300' AGL;  
(b) 33-03.23N 82-32.16W 250' AGL;  
(c) 33-24.92N 79-54.56W 200' AGL;  
(d) 33-24.05N 79-56.59W 200' AGL.
- (15) CAUTION: Radar globe at 32-39.44N 81-02.64W approx 200' AGL.
- (16) Avoid: Louisville and Louisville Airport by 1500'/3 NM.
- (17) CAUTION: VR-87 crosses right to left at Point K (deconflict DSN 722-2129).
- (18) Avoid: Tower 375' AGL (450' MSL) at 33-26.0N 80-01.6W.
- (19) CAUTION: Power line 300' AGL crosses N to S between E and F, 33-02.5N 81-44.0W to N32-45.0 W81-38.5.
- (20) Avoid: Noise Sensitive Area, stork farm and Lake at 32-52.0N 82-02.5W, avoid by 1500'/1 NM.
- (21) AVOID: N32-41.0 W81-08.1 500' AGL/1 NM, 14 towers with cable in between.
- (22) AVOID: Seven Noise Sensitive Areas:  
(a) N33-58.0 W81-38.0, avoid by 1000' AGL/2 NM;  
(b) Givhans, SC N33-00.8 W80-20.2, avoid by 1000' AGL/1.5 NM;  
(c) Lake City, SC N33-52.2 W79-45.5, avoid by 1000' AGL/5 NM;  
(d) Lakewood Plantation, SC N33-42.4 W79-34.4, avoid by 1500' AGL/1 NM;  
(e) Residential area N34-01.0 W81-43.5, avoid by 1500' AGL/1 NM;  
(f) Farm N32-51.1 W81-40.5, avoid by 1500' AGL/1 NM;  
(g) Horse Farm, 33-03.54N 82-09.58W, avoid by 1500'/1 NM.
- (23) AVOID: Grass strips at:  
(a) 34-02N 81-53.9W;  
(b) 34-07.17N 81-58.76W;  
(c) 32-49.5N 81-21.5W;  
(d) 32-50.7N 81-38.3W;  
(e) 32-58.9N 82-07.08W;  
(f) 32-58.9N 82-07.08W.
- (24) AVOID: Permanently manned fire tower, N32-50.7 W81-18.2 by at least 500'.
- (25) CAUTION: When transiting through BULLDOG A MOA airspace make call IN THE BLIND prior to Point C on UHF frequency 343.75.
- (26) AVOID: Three Noise Sensitive Areas:  
(a) Vidette GA, N33-02.1 W82-14.9, avoid by 1000' AGL/1 NM;  
(b) Structure being used as a target at N33-00.5 W82-41.5, avoid by 1000' AGL/1 NM;  
(c) Dairy farm, N32-49.9 W81-52.5, avoid by 1500' AGL/1 NM.
- (27) Make entry time plus or minus 5 minutes or reschedule. Unpublished towers found by route surveys 200' AGL and above are listed in this SOP.

**FSS Within 100 NM Radius:**

AND, MCN, RDU