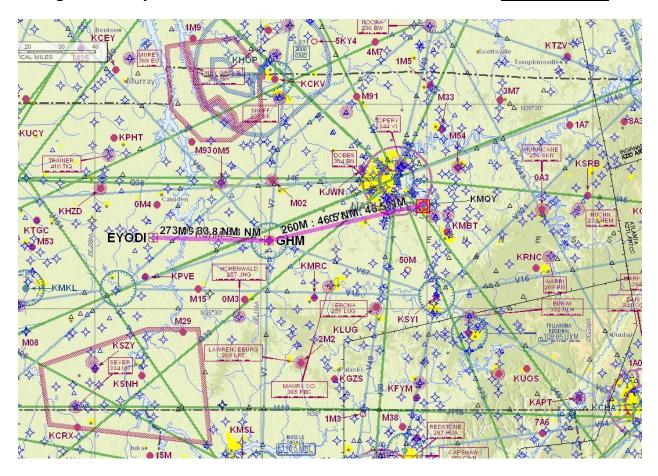
# Flight track 1: See new number flight numbers 8-14

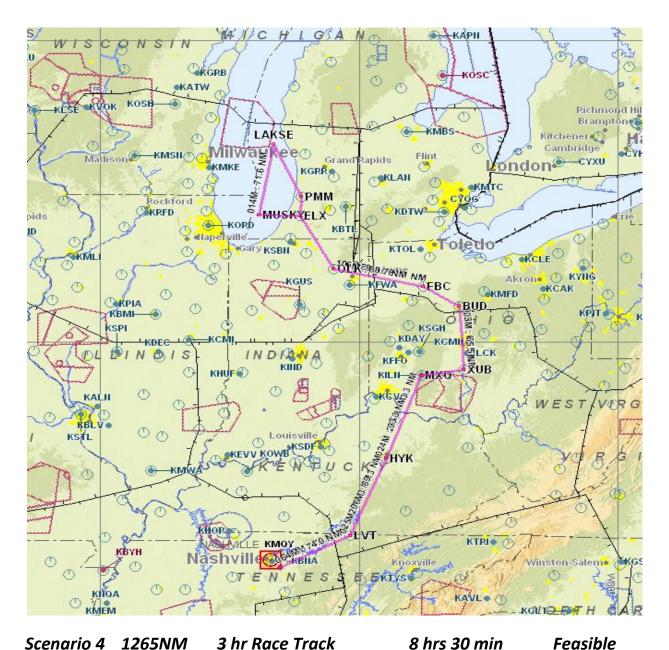


## All flights are daytime with takeoff times of 0830 to 0900 CDT except #2+#3.

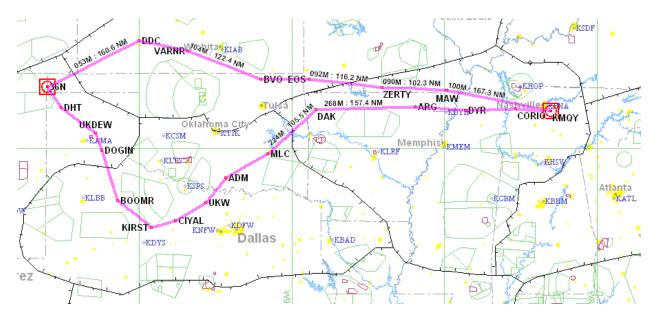
Flight patterns 2 & 3 160NM 7 hrs 15 min Feasible Route – KMQY GHM EYODI GHM KMQY

Flight pattern #2: Afternoon flight. Estimated takeoff 1500 CDT

*Flight pattern #3: Night/Early morning flight. Estimated takeoff 0400 CDT.* 

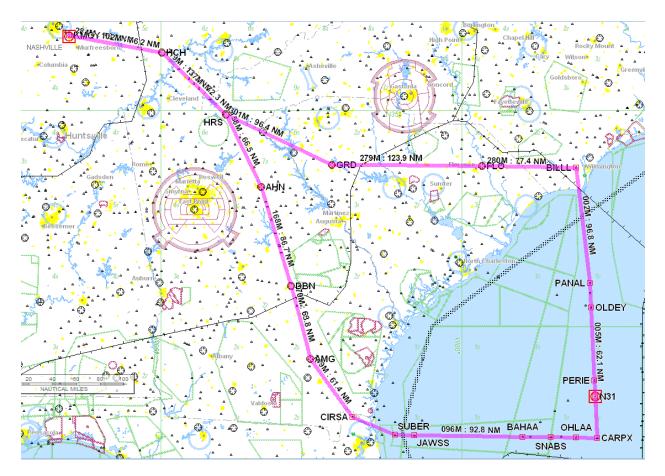


Scenario 4 1265NM 3 hr Race Track 8 hrs 30 min Feasible Route – KMQY LVT HYK MXQ XUB BUD FBC OLK ELX MUSKY LAKSE PMM ELX OLK FBC BUD XUB MXQ HYK LVT KMQY



Flight Profile #5, West to N3648W10300 at 17,000 feet initially with a step climb to FL200 two and a half to three hours after departure. Southerly heading for a descent from FL200 to 8000 feet MSL followed by an ascent back to FL200. Easterly turn at KIRST toward Tennessee via a Northward arc at FL200. Return to KMQY.

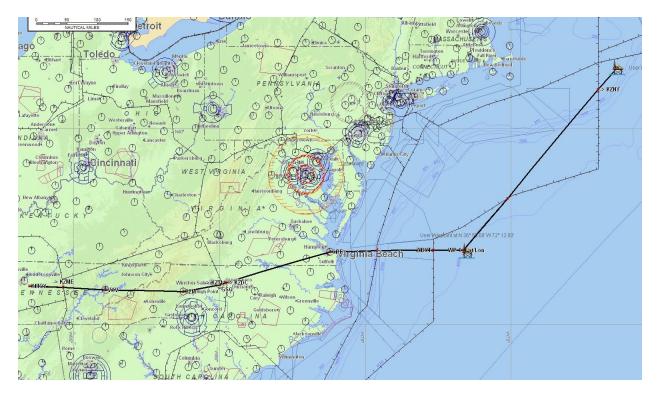
Total miles = 1825nm. Flight plan is feasible as shown. Plan estimated to take 7+40 flight time to complete.



## Flight Profile #6.

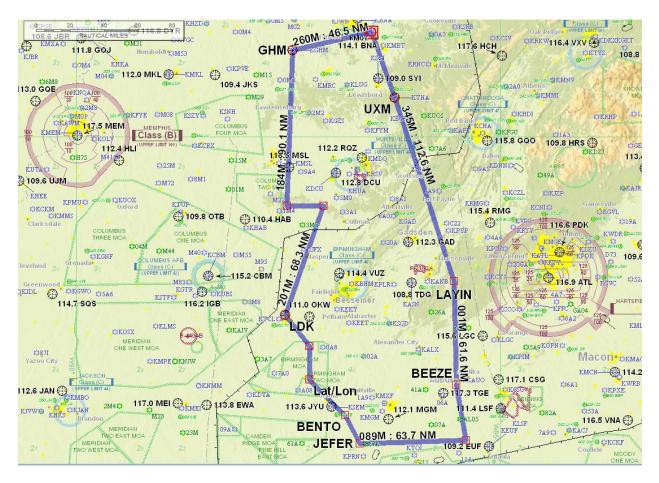
Transect from Tennessee to North Atlantic 160 to 215nm off North Florida/South Georgia coast at 12,000 feet MSL. Five level vertical profiling between N31 and CARPX (40nm racetrack pattern) from MBL up to FL200. Off coast transect from N31 to North Carolina at 12,000 feet MSL. Return to Tennessee from North Carolina coast at 12,000 feet MSL. Please be aware that the warning areas off the coast of North Florida/South Georgia maybe a problem on certain days when they are active. Advisable to call the controlling agency a few days prior to flight to inquire about planned activity. (Warning Areas – 158F, 158E, 159A and 159B).

- 1. Total miles = 1460nm(5 racetrack patterns included)
  - a. Flight plan is feasible as shown. Scientist estimated flight to be 8+30. This may need to be reduced by thirty minutes to get it down to 8+00, particularly due to the need to reduce our fuel load as a result of temperature greater than 84 degrees F at the time of departure from Smyrna. RAF flight operations estimates this plan to be less than 8+30.



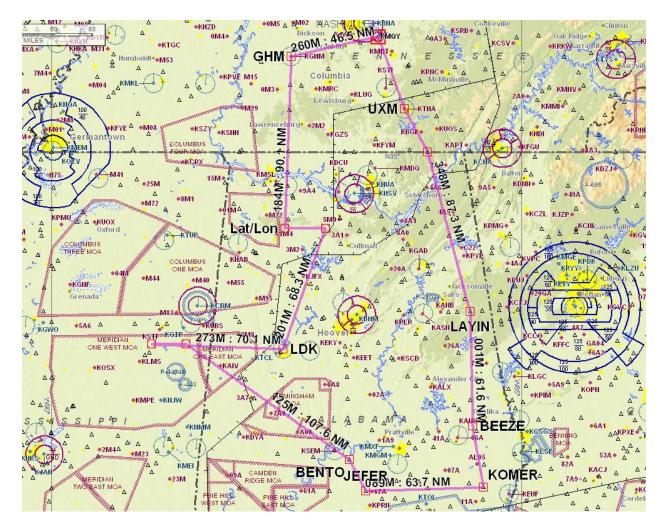
Flight track # 72,200 NM9hrs 12 minutes flight duration FeasibleRoute - KMQY VXV BZM GSO ORF ZIBUT N3656W07137 N4130W06621

N3656W07137 ZIBUT ORF GSO BZM VXV KMQY



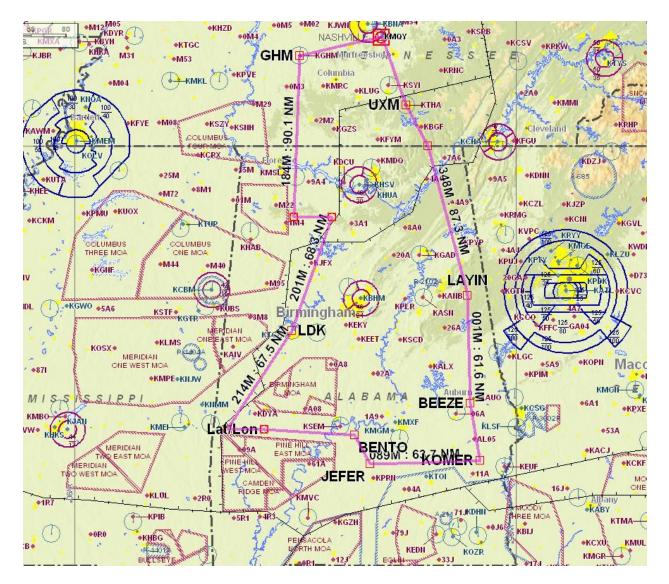
## **NEW NUMBER 8**

(Alabama) 5 Flights - . Eight hour flight is feasible for all racetrack options.



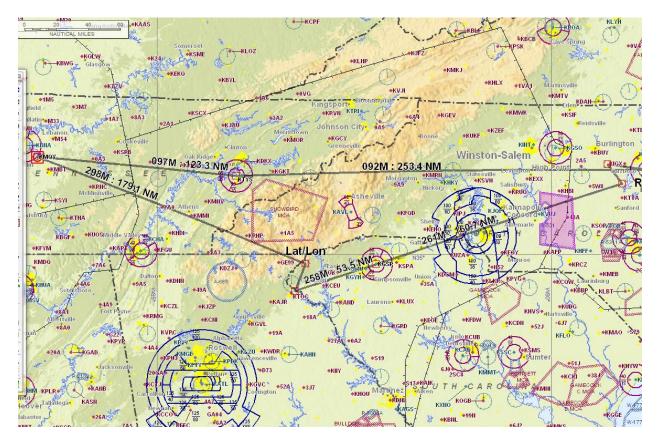
#### **NEW NUMBER 9**

**Racetrack option** 



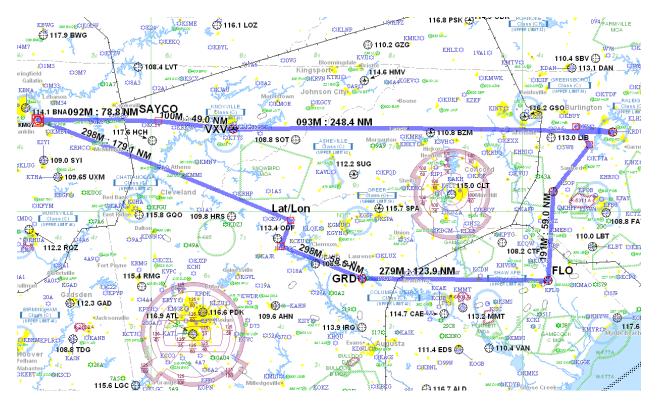
#### **NEW NUMBER 10**

**Racetrack option** 



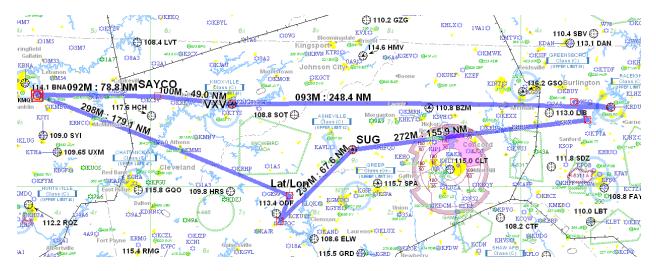
**NEW NUMBER 11** Eight hour flight is feasible with the following cautions:

Possible problems exist flying into Greenville/Spartanburg (Class C airspace up to 5000 AGL) and Charlotte (Class B airspace up to 10,000 feet). Anticipate vectors for traffic and possible diverts from Charlotte Class B airspace. Suggest moving track North or South to avoid both classes of airspace. Also, track transects an Alert Area A-531 which begins at 200' AGL and extends up to 1,500' AGL, M-F 0600-2400 with occasional operations on Saturday and Sunday. Horizontal survey has us flying through there at 1000' AGL, recommend climbing to 2000' AGL to avoid airspace. The following flight tracks are recommended to avoid Class B, C and Alert airspace.



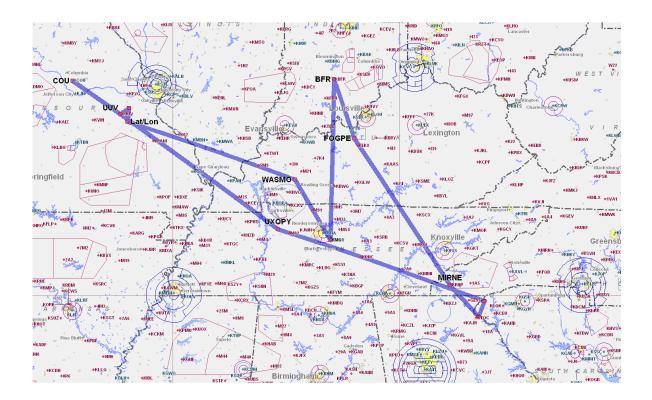
## NEW NUMBER 11a (similar to 11, but with diversion around controlled airspaces.) (South Divert)

This route misses Greenville/Spartanburg Class C, Charlotte Class B and Alert 531 airspace.



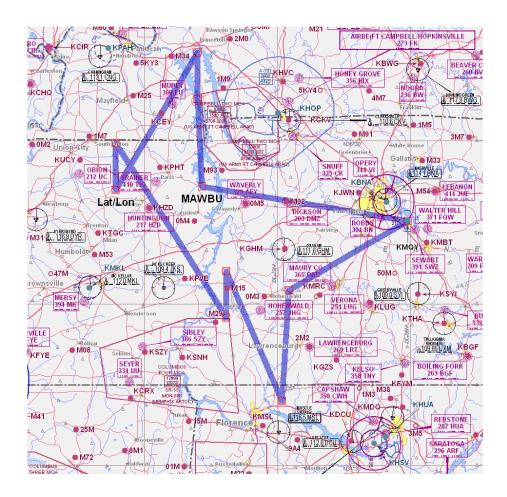
## NEW NUMBER 11b (similar to 11, but with diversion around controlled airspaces.)

(North Divert) This route misses Greenville/Spartanburg Class C, Charlotte Class B and Alert 531 airspace.



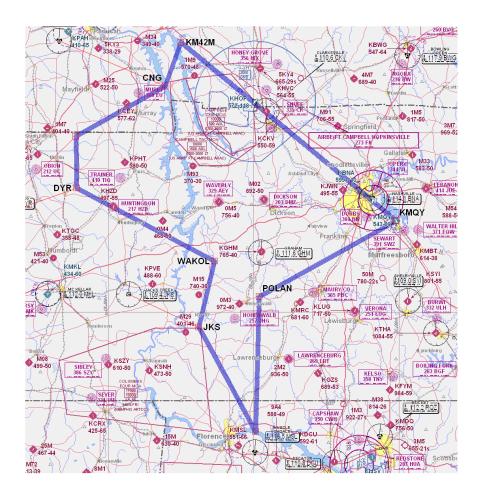
## NEW NUMBER 12 (Ozarks) 1 flight

This flight track is feasible, with only minor deviations in the route required to avoid airspace conflicts



## NEW NUMBER 13 (Tennessee – local) 1 flight

This series of stacked race tracks is feasible, with minor route deviations to avoid airspace conflicts.



## **NEW NUMBER 14**

Four different racetracks. Each racetrack included 7 passes (1. Above PBL 2. Below top of PBL 3. Mid PBL 4. 1,000 AGL 5. Mid PBL 6. Below top of PBL 7. Above PBL). Each set of racetracks will also include 6 180 degree turns at 1 minute per turn.

This flight will take approximately 7.5 hours to complete.