
ATLANTA TERMINAL CONTROL AREA
Contact Atlanta Approach Control on 126.9 or 319.8
Contact Atlanta Approach Control on 126.9 or 319.8
Contact Atlanta Approach Control on 118.1 or 263.1
Contact Atlanta Approach Control on 118.1 or 263.1
ATLANTA
CARTERSVILLE
Cassville
CLINE 790 - 40
Atco
PINE MT
ALLATOONA DAM
Emerson
CARTERSVILLE 786 L 32
Woodstock
Acworth
Kennesaw
McCOLLUM 1010 L 40 U-1
KENNESAW MT
LOST MOUNTAIN 314 LSM
New Hope
LOST MT
Dallas
DALLAS
Hiram
Powder Springs
MARIETTA DOBBINS 736 MGF
Control Zone eff 0700-2300
DOBBINS AFB NAS ATLANTA CT - 126.2 1068 L 100
Smyrna
PARKAIRE 1085 - 22 U-1
Elisabeth
Sandy Springs
Dunwoody
Roswell
Crabapple
ATLANTA Black Jack Mt
Alpharetta
Cumming
CUMMING
MATHIS 1150 - 15
BUFORD
Sugar Hill
VANTRESS (Pvt) 950 - 25
Duluth
Norcross
Control Zone eff 0700-2300
Lilburn
Luxomni
Tucker
DE KALB - PEACHTREE CT - 126.9 1002 L 50 U-2
Snellville
STONE MOUNTAIN 988 L 25 U-1
Stone Mountain
Pine Lake
Centerville
Magnetic disturbance of as much as 10° exists at 4000' elevation in the vicinity of Stone Mountain
Redan GUNN 930 L 21 U-1
Lithonia
Conyers
Austell
FULTON CO 249 108.2 FTY
TERRY
HARRISON
FSS FULTON COUNTY CT - 118.5 840 L 58 U-2
Douglasville
FLYING S RANCH 1084 - 35
Winston
Campbellton
CHATTAHOOCHEE
Fairplay
Stonewall
Fairburn
SOUTH FULTON 1025 - 27 U-1
Palmetto
Jonesboro
Lovejoy
Hampton
Ellenwood
Forest Park
MORRIS AAF CT - 126.2 924 - 30
BOBBY JONES
ATLANTA CT - 119.1 ATIS 111.8 1024 L 100 U-2
BRUCE 786 BRU
SEX 111.8 Ch 55 REQ
Stockbridge
BELLAH 750 - 23
BERRY HILL 770 - 32 U-1
Kelleytown
Monastery
Magnet
Flippen
SOUTH EXPRESSWAY 900 (L) 27 U-1
MC DONOUGH
Mc DONOUGH
Fayetteville
TAYLOR (Pvt) 875 - 20
WILLOW POND (Pvt) 900 - 30
ADAMS (Pvt) 898 - 17
Tyrone
Sargent
Arnco Mills
SHARPS
NEWNAN
NEWNAN-COWETA CO 972 L 35 U-1
East Newnan
Raymond
TYRONE
Sharpsburg
Turin
Senoia
Moreland
Woolsey
Sunny Side
Luella
Locust Grove
Jenkinsburg
HAMPTON
Jackson
GRIFFIN
Grantville
ALVATON
Haralson
Vaughn
BROOKS
Brooks
WHIE 1320 Dvors
GRIFFIN-SPALDING CO
Lutharsville

Notes From The Washington Counsel

by JOHN S. YODICE/ AOPA 199738

Terminal Control Areas

■■ The terminal control area (TCA) proposal—the "upside-down wedding cake"—is now law.

You have read a great deal about AOPA's battle against the terminal control area rule. You have read a great deal about the AOPA proposal for climb and descent corridors and its advantages over the terminal control area concept. We will not go into these matters here. Since the rule is now effective, our concern in this article will be with explaining the rule and determining how best to comply with it.

The rule is basically an anticollision device. This is accomplished by fixing the boundaries, including a ceiling and several floors, of airspace in the vicinity of some 24 heavily trafficked airports, and by imposing the special requirements for operation in this airspace designed to keep aircraft apart. The airspace configurations are tailored for each location and therefore differ. As experience will probably show, it is the lack of uniformity of the airspace configurations of the TCAs which makes the rule difficult.

The terminal control areas are divided into two groups, Group I and Group II. Group I areas are generally more heavily trafficked, especially by jet airline aircraft, than Group II. The operational requirements, which differ for each group, are contained in Section 91.90 of the Federal Aviation Regulations. As you would expect, these requirements do not apply until the airspace which defines the TCA has been adopted as a rule.

So far, Group I TCAs have been established for Atlanta, Washington, and Chicago. The other areas where Group I TCAs will be established are Boston, Dallas, JFK International, LaGuardia, Los Angeles, Miami, and San Francisco.

The tentative locations for the Group II areas are Cincinnati, Cleveland, Denver, Detroit, Houston, Kansas City, Las Vegas, Minneapolis, Newark, New Orleans, Philadelphia, Pittsburgh, Seattle, and St. Louis.

The operational requirements are fairly simple to understand. First, let's look at instrument operations. Fortunately for the IFR pilot on an instrument flight plan in a light aircraft, the terminal control area rule imposes only one additional requirement: If the operation is to or from the primary airport (the airport upon which the terminal control area is based) the aircraft must be equipped with a transponder. Other than this equipment requirement, the pilot flying IFR in a light aircraft can safely ignore the terminal control area rule.

For the VFR pilot, the situation is quite different. He must either circumnavigate the TCAs or he must meet the special requirements for operating within a TCA.

The requirements to operate VFR within a Group I TCA are:

1. You must obtain a *clearance.*
2. You must be at least a *private pilot* to land or take off from an airport within the TCA (though a student pilot may fly through, and may land or take off from an airport under the floor of the TCA).
3. Your aircraft must have:
   a) A *VOR receiver* (not required for helicopters);
   b) a *two-way radio;*
   c) a *transponder* (not required for helicopters).

The clearance is required because all aircraft within Group I TCAs will be controlled and separated by ATC. Control and separation will be accomplished primarily by radar. Remember that the VFR pilot still has the obligation of remaining in VFR weather conditions. He must not get too close to clouds or get into conditions of reduced visibility. When taking radar vectors from a controller, the pilot must insure that the vectors do not force him to violate the VFR weather minimums. The weather minimums within a TCA are three statute miles' visibility and a distance of 500 feet below, 1,000 feet above, or 2,000 feet horizontally from clouds. For operations underneath the ceiling in a control zone, the ceiling must be at least 1,000 feet.

Operating VFR in a Group II area imposes less stringent requirements. A transponder is not required. And a student pilot may operate at the primary airports as well as anywhere else in the TCA. The requirements are a *clearance,* a *VOR receiver,* and a *two-way radio.*

Separation will not be provided to all aircraft operating within a Group II TCA. Separation will be provided only to large, turbine-powered aircraft from all other aircraft within the TCA. However, radar traffic advisory service will be provided on request, to aircraft within the TCA, on a workload-permitting basis.

So we see that while the operational requirements may be onerous in some instances, they are not difficult to understand. Applying the rule is another thing.

The VFR pilot who wishes to operate within a TCA will have additional preflight and cockpit chores, such as interpretation of a fairly complicated chart, obtaining and following a clearance, and being prepared to hold outside the TCA if the clearance is not forthcoming. VFR pilots who cannot meet the operational requirements, or who for some other reason wish to avoid operating within the TCA, must circumnavigate the TCA, or may fly through the TCA in a VFR corridor which will be provided at most of the TCAs.

The VFR corridor is free airspace which has been cut through the TCA so that VFR aircraft may overfly the primary airport without contacting ATC, or without having to meet the transponder or other operational requirements. The burden on the VFR pilot attempting to stay out of the TCA is to locate the lateral and vertical boundaries of the TCA or the VFR corridor and to continuously monitor his position with respect to these boundaries.

The boundaries of each TCA will be depicted on new VFR terminal area charts. The first of these charts to be published is the Atlanta Terminal Control Area Chart, a portion of which is depicted on the opposite page to illustrate how TCAs will be charted. In addition, it is expected that the appropriate sectional charts and the radio facility charts will contain notices of the TCAs and hopefully will depict the lateral boundaries of the TCAs. But to operate within, through or under a TCA, the VFR terminal control area chart will be the primary aid.

The TCA chart depicts a plan view of the TCA, and since the TCA is three-dimensional, is a bit difficult to interpret. The TCA has been referred to as an "inverted wedding cake," and while the description is not entirely accurate, it does help in visualizing the TCA airspace configuration.

The TCA has an upper limit. The Atlanta TCA has a ceiling of 8,000 feet m.s.l. Operations may be conducted above 8,000 feet m.s.l. without regard to any of the TCA operational requirements discussed above.

The TCA also has lateral limits. The widest lateral limit is easily identifiable on the TCA chart. While remaining clear of this lateral boundary might be inconvenient, it ought not to be too difficult.

Operating under the floors becomes more difficult. The TCA has varying lower limits (generally stepped down like an inverted wedding cake), which limits or floors are keyed by the "alphabet soup" on the TCA chart. Flying under these floors presents navigational problems that require some careful preflight planning, constant monitoring of position by ground references, and a little cooperation from the weather.

Whether we are operating to or from an airport underlying the TCA, or whether we are transiting the area under the floors, we must determine the height of the floors overlying our route of flight, to insure that we do not penetrate them. We must also be precise in

our navigation, to insure that we do not penetrate the TCA through one of its lateral boundaries.

Using pilotage, and perhaps omnigation, we should be able to navigate under these floors. For example, if we want to go from Fulton County Airport on a straight line to South Fulton Airport, we must remain below 2,500 feet m.s.l. to stay underneath the floor of Area B. If we have an omni receiver, we can navigate on, or a bit to the west of, the 205° radial of the Fulton County VOR to avoid Area A. Without an omni, we will have to be careful not to get too far east of the Chattahoochee River, and the highway that parallels it, until we are well clear of Area A.

So far we have discussed operating over, around and under the TCA, using a TCA chart. Another way of avoiding the TCA is to operate through the VFR corridor that will be provided at most TCAs.

The boundaries of the corridor for the Atlanta TCA are depicted by the magenta angled lines around Atlanta Municipal Airport. The legend tells us that the corridor is between 4,200 feet m.s.l. and 6,000 feet m.s.l. Using our hemispheric rule for level VFR flight, the altitudes of 4,500 feet and 5,500 feet are available, depending on our direction of flight. We can transit the Atlanta area, without entering the TCA, by flying under the "D" area at 4,500 or 5,500 feet, flying through the corridor, and exiting under the "D" area on the other side.

If we are going to enter the TCA, either to transit the area or to operate at the airports in or underlying the TCA, then we are subject to the TCA operational requirements. We must obtain a clearance *before* we enter the TCA. This clearance is obtained by communicating with the appropriate facility on the frequency given on the chart. Notice in our illustration that the frequency is different, depending on the direction from which penetration is to be made. In our request for clearance, we must specify our position in reference to some geographical fix. The FAA-recommended fixes are indicated by flags on the chart.

We will be assigned a transponder code and cleared to the airport or through the TCA. Separation will be accomplished primarily by radar, although approved visual separation and other nonradar procedures may sometimes be used. Remember, in Group II TCAs separation service will not be provided except to large turbine aircraft. Traffic information will be available on a workload-permitting basis.

It is true that the TCA rule has created and will continue to create problems for the general aviation pilot. However, the rule does have some advantages. For instance, there is a speed limit of 200 knots (230 m.p.h.) under the floors of the TCAs. And jets and propjets operating to or from the primary airport are prohibited from operating under the floors of the TCAs. So the likelihood of encountering high-speed traffic under a TCA is small. □