

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 71**

[Airspace Docket No. 92-AWA-6]

RIN 2120-AF02

**Alteration of the Charlotte Class B Airspace Area; North Carolina**

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

**SUMMARY:** This rule alters the Charlotte, NC, Class B airspace area. The designated lateral and vertical limits of the Charlotte Class B airspace area will continue as they currently exist—a 30-mile radius of Charlotte/Douglas International Airport from the surface or higher to and including 10,000 feet mean sea level (MSL). Some lower vertical limits will change. Several of the subareas in the Class B airspace area are altered and redefined to improve the flow of aviation traffic and enhance safety in the Charlotte area while accommodating the concerns of airspace users.

EFFECTIVE DATE: 0701 UTC July 20, 1995.

**FOR FURTHER INFORMATION CONTACT:** Patricia P. Crawford, Airspace and Obstruction Evaluation Branch (ATP-240), Airspace-Rules and Aeronautical Information Division, Air Traffic Rules and Procedures Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; Telephone: (202) 267-9255.

**SUPPLEMENTARY INFORMATION:****Background**

Airspace reclassification, effective September 16, 1993, discontinued the use of the term "Terminal Control Area" (TCA) and replaced it with the designation "Class B Airspace." This change in terminology is reflected in this rule. On May 21, 1970, the FAA published Amendment No. 91-78 to part 91 of Title 14 Code of Federal Regulations (CFR) that provided for the establishment of Class B airspace areas (35 FR 7782).

The Class B airspace area program was developed to reduce the midair collision potential in the congested airspace surrounding airports with high density air traffic by providing an area in which all aircraft will be subject to certain operating rules and equipment requirements. The density of traffic and the type of operations being conducted in the airspace surrounding major terminals increase the probability of

midair collisions. In 1970, an extensive study found that the majority of midair collisions occurred between a general aviation (GA) aircraft and an air carrier, military, or another GA aircraft. The basic causal factor common to these conflicts was the mix of uncontrolled aircraft operating under visual flight rules (VFR) and controlled aircraft operating under instrument flight rules (IFR). The establishment of Class B airspace areas provides a method to accommodate the increasing number of IFR and VFR operations. The regulatory requirements of Class B airspace afford the greatest protection for the greatest number of people by providing Air Traffic Control (ATC) with an increased capability to provide aircraft separation service, thereby minimizing the mix of controlled and uncontrolled aircraft. To date, the FAA has established a total of 29 Class B airspace areas.

On June 21, 1988, the FAA published a final rule which required aircraft to have Mode C equipment when operating within 30 nautical miles of any designated Class B airspace area primary airport from the surface up to 10,000 feet MSL, excluding those aircraft not certificated with an engine-driven electrical system, balloons, or gliders (53 FR 23356).

**User Group Participation**

The alterations adopted by this rule are based on the FAA's analysis of the airspace, a review of the written comments submitted to the docket, and oral comments made by members of the aviation community in public hearings. The proposed changes to the Charlotte Class B airspace area were published in a Notice of Proposed Rulemaking (NPRM) on March 2, 1994 (59 FR 10040).

**Discussions of Comments**

The FAA received 10 written comments regarding the proposed alteration of the Charlotte Class B airspace area. The FAA has determined that alterations to the Charlotte Class B airspace area, as contained herein, will promote the safe and efficient use of airspace and will meet users concerns. Some of the comments addressed subject areas that were not relevant to this rulemaking; therefore, these comments will not be discussed.

**Summarization of Comments By Subject Matter**

(1) One commenter, a private/business pilot, wrote concerning the incremental cost for transient aircraft circumnavigating the Charlotte Class B airspace area. The pilot suggested that the FAA was not realistic in estimating

the cost imposed on the flying public when proposing to expand the area.

This alteration involves minimal expansion of the existing Charlotte Class B airspace area, and the cost to the flying public is expected to be negligible. To further address the concerns of pilots utilizing the Charlotte Class B airspace area, the FAA coordinated with the local airspace users to develop the Charlotte Visual Flight Rules (VFR) Flyway Planning Chart. The initial edition of the Charlotte VFR Flyway Planning Chart will be published coincidental with this rule action.

(2) The FAA received comments and recommendations from the Aircraft Owners and Pilots Association (AOPA), Air Transport Association (ATA), Experimental Aircraft Association (EAA), Soaring Society of America, Inc. (SSA), JAARS Inc., and other aviation-related businesses and pilots as summarized below:

Commenters suggested that the ceiling of the Charlotte Class B airspace area be lowered to 8,000 feet MSL in lieu of the existing 10,000 feet MSL. EAA wrote, that contrary to FAA's response in NPRM, lowering the ceiling would not cause VFR aircraft to conflict with IFR aircraft transitioning on Victor airway 37. Furthermore, EAA stated that separation standards could be achieved because VFR aircraft would be 500 feet MSL above or below the IFR aircraft. AOPA alleged that the FAA's decision to maintain the ceiling at 10,000 feet MSL is "blatantly discriminatory towards GA." In AOPA's opinion, VFR GA aircraft can not get clearances into the Class B airspace area; rather, they are routed on airways around this airspace increasing both the cost and time of the flight. AOPA further states, that it is also apparent that the FAA's decision to retain the 10,000 foot ceiling did not consider the Traffic Alert and Collision Avoidance System (TCAS) requirements for airlines or the transponder/Mode C requirement for GA. One commenter suggested that there was no rational basis for a ceiling of 10,000 MSL for the airspace.

The FAA can not adopt this recommendation to lower the ceiling of the Charlotte Class B airspace area. The impact of lowering the ceiling of the Charlotte Class B airspace area to 8,000 feet MSL would be to reduce safety in the area between 8,000 feet MSL and 10,000 feet MSL. Within a 20-mile radius of the Charlotte/Douglas International Airport the airspace between 7,000 feet MSL and 10,000 feet MSL is frequently utilized by large numbers of high performance turbojet and turboprop aircraft. Arrivals and

departures of these aircraft average 100+ per hour and must be combined with an increasing number of overflights. During the 12-month period, June 25, 1993, to June 24, 1994, the FAA recorded 30,000 IFR and 31,000 VFR overflights with monthly highs of 3,000 and 2,800, respectively, operating in the airspace between 7,000 and 10,000 feet MSL.

During the preliminary phase of this rulemaking the FAA explored several options before considering an alteration to the Charlotte Class B airspace area. The FAA concluded that the existing airspace area is not sufficient to manage the peak volumes of IFR operations experienced in today or in the future. Without this alteration, changes to the existing procedures and significant limitations on the volume of air traffic facilities would be required to support all aircraft. The alternatives to modifying the airspace would have a negative impact on the air traffic system by forcing other facilities to routinely hold aircraft on the ground. Disrupted schedules and additional financial burdens would then be placed on the airspace users. Consequently, the FAA has determined to alter the Charlotte Class B airspace area as provided in this document to improve the flow of aviation traffic and enhance safety.

(3) Comments objecting to the lowering of the floor of Area C to 3,600 and Area D to 4,600 feet MSL from 6,000 feet MSL between 20- to 25-miles north and south of the airport were received. AOPA and EAA stated that it was practical for ATC to keep commercial jets higher than 3,600 feet MSL during descent 25 miles from the airport.

The FAA does not concur with this option. ATC procedures at the airport routinely require that aircraft be sequenced on the final approach courses at and beyond 20 miles. Lowering the Charlotte Class B airspace floor permits turn-on for the simultaneous instrument landing system (ILS) and/or visual approach at 3,600 feet MSL and 4,600 feet MSL between 20 and 25 miles. The FAA has determined that the requirement to intercept a precision approach at or below the glideslope cannot be met without lowering the floor of Areas C and D. Ensuring separation within the 20- to 25-mile arc area of the Charlotte/Douglas International Airport at 3,600 feet MSL and 4,600 feet MSL enhances the safety of flight operating in this area regardless of weather conditions.

(4) One commenter objected to lowering the floor in Area E from 8,000 feet MSL to 6,000 feet MSL between 25 to 30 nautical miles from the airport. Aircraft executing approaches and

transitioning through Areas C and D, at 3,600 and 4,600 feet MSL respectively, must utilize Area E. Retaining the floor Area E at 8,000 feet MSL causes aircraft to fly a circuitous route to the final approach course or descend below the floor of the Class B airspace area. The FAA has determined that lowering the floor to 6,000 feet MSL in Area E enhances safety.

(5) One commenter wrote with objections to the proposed design alteration of the Charlotte Class B airspace area. In this pilot's opinion, the present airspace "dart board" design and navigation is simple and straight forward. Currently, the Charlotte Class B airspace area has very high frequency omnidirectional range and distance measuring equipment (VOR/DME) that is easy to identify and consistent with the arrival corridors outlined in the Charlotte/Douglas International Airport standard terminal arrival routes. The commenter said that the new design could only serve to confuse pilots operating in that area.

The FAA made an effort to modify the Charlotte Class B airspace area to accommodate all airspace users. This site-specific design was developed by a working group, consisting of local pilots and airport operators. The FAA has determined that this rule will best accommodate the concerns of airspace users and enhance safety.

(6) Comments were received from EAA and the SSA (on behalf of the members of the Chester Soaring Association). The commenters opposed lowering the floor in the southern half of the area between 20- to 25-miles in the vicinity of the Chester, SC, airport, lowering the floor of the southwest arrival/departure corridors to 6,000 feet MSL, and adding certain triangular shaped areas to the Class B airspace area adjacent to the arrival and departure corridors on the southwest and southeast. These commenters suggested that the Class B airspace area not be amended until actual air traffic growth warrants further change.

The FAA accommodates the glider operations, through a letter of agreement (LOA), as air traffic conditions permit. The FAA has determined that this rule will accommodate the concerns of glider users in a safe and efficient manner. The FAA has found that Charlotte/Douglas International Airport and the associated Class B airspace area has experienced an average of 3½ per cent increase in operations during the past 5 years. The FAA has determined that the growth in air traffic operations coupled with the changing needs of the airspace users warrant the modifications to the Class B airspace area set out in this rule.

(7) ATA and ALPA submitted comments in support of the alteration to the Charlotte Class B airspace area as proposed.

#### The Rule

This amendment to part 71 of the Federal Aviation Regulations (14 CFR part 71) modifies Class B airspace area around Charlotte/Douglas International Airport. The upper limits of the Charlotte Class B Airspace area remain at 10,000 feet MSL, however, the subareas within the area are modified. The surface area, Area A, is reduced to a 7-nautical mile radius from an 11-nautical mile radius of the Charlotte/Douglas International Airport. Modifying Area A enhances the utilization of the airspace for east-west VFR traffic while providing maximum separation between IFR and VFR traffic. Area B is established between the 7 to 11-nautical mile radius of the airport, to include that airspace from 1,800 feet MSL to but not including 10,000 feet MSL. Area C and Area D are altered extending north and south of the airport, between the 11 to 25-nautical mile radius, and including that airspace from 3,600 and 4,600 feet MSL to but not including 10,000 feet MSL. Areas C and D are designated to accurately reflect the needs of ATC, to support operations for simultaneous ILS and/or visual approach, and to meet the requirement to intercept the precision approach at or below the glideslope. Both Areas E, between the 25 to 30-nautical mile radius, are modified to lower their floors from 8,000 feet MSL to 6,000 feet MSL, to align aircraft on the final approach course and contain aircraft operations within the Class B airspace area. The alteration of the Charlotte Class B airspace area is depicted in the attached chart.

Class B airspace designations are published in Paragraph 3000 of FAA Order 7400.9B, dated July 18, 1994, and effective September 16, 1994, which is incorporated by reference in 14 CFR 71.1. The Class B airspace area listed in this airspace alteration will be published subsequently in the Order. The coordinates for this airspace docket are based on North American Datum 83.

#### Regulatory Evaluation

This section summarizes the regulatory evaluation prepared by the FAA on the proposed amendments to 14 CFR part 71—to alter the Charlotte Class B Airspace. This summary and the full regulatory evaluation quantify, to the extent practicable, estimated costs to the private sector, consumers, and Federal, State, and local governments as well as anticipated benefits.

The FAA has determined that this rulemaking is not "a significant rulemaking action", as defined by Executive Order 12866 (Regulatory Planning and Review). The anticipated costs and benefits associated with this final rule are summarized below (A detailed discussion of costs and benefits is contained in the full evaluation in the docket for this final rule.).

Operational requirements require that the Class B Airspace area be lowered at 20 and 25 nautical miles from the Charlotte/Douglas International Airport (CLT) to more easily accommodate large turbine-powered aircraft operating in the Class B Airspace area.

The modifications to the Charlotte Class B Airspace area are the result of a study conducted by the FAA. The airspace design reflects user feedback and information obtained during Informal Airspace Meetings held June 17 and 18, 1992, at the North Carolina Air National Guard Facility at Charlotte Douglas International Airport.

#### *Cost Analysis*

The final rule will impose little or no administrative costs to the FAA. Additional personnel and equipment are not needed to implement this rule. The FAA's controller workforce will be trained in the aspects and procedures of the Class B Airspace area during regularly scheduled briefing sessions at no additional costs to the FAA.

The Charlotte Terminal Area Chart will require revision to incorporate the addition of a VFR Flyway Planning Chart that facilitates entry into and flight around the Class B Airspace. The FAA will publish the initial Charlotte VFR Flyway Planning Chart coincidental with this rulemaking action, and will continue to incorporate these changes as the terminal area chart is routinely updated. These changes are considered part of the ordinary cost of chart revision, and therefore, the FAA will incur no additional costs. Because pilots should use current charts, they will not incur any additional costs either; as the charts become obsolete, pilots will replace them with charts that depict the modified Class B Airspace.

The final rule will impose little costs to VFR users for several reasons. The FAA expects that Lincolnton, Jaars/Townsend, and Lake Norman airports will be the only public airports affected by the lower floor. To the north of Charlotte, the Class B Airspace area floor will change from 6,000 feet MSL to 4,600 feet MSL (over Lincolnton) and will create a 6,000 foot MSL floor over Lake Norman. To the south of Charlotte, the Jaars/Townsend airport will be affected by the floor of the Class B

Airspace area changing from 6,000 feet MSL to 3,600 feet MSL. Pilots currently using this affected airspace may choose to avoid or remain outside of Class B Airspace area by flying below the area floors or circumnavigating the Class B Airspace area. Alternatively, they may choose to participate in the Charlotte Class B Airspace area. Those choosing to avoid the Class B Airspace area by circumnavigation will incur circumnavigation costs, but the added time and cost to circumnavigate is expected to be minimal. Those pilots who continue to operate in this airspace by participating in the Charlotte Class B Airspace area will be required to contact ATC and follow the operational rules requirements of a Class B Airspace area.

Those aircraft operators who wish to avoid the Class B Airspace area face potential circumnavigation costs in those areas where the floor will be lowered north and south of the airport. However, this impact is expected to be offset by those general aviation aircraft that will benefit by the reduced surface area of the Class B Airspace area and the raised floor of the Class B Airspace area east and west of the airport. Therefore, the net total cost impact is expected to be negligible.

Finally, glider operations will continue to be accommodated by the LOA as air traffic conditions permit. These procedures will accommodate the concerns of all airspace users in a safe and efficient manner.

#### *Benefit Analysis*

This rule is expected to enhance safety by reducing the risk of midair collisions by increasing the area of Class B airspace around Charlotte, North Carolina.

Due to the proactive nature of these changes, the potential safety benefits are difficult to quantify in monetary terms. Aircraft operations within the present configuration of the Charlotte Class B Airspace area have increased since the initial Class B Airspace area was established. A greater number and mix of high performance aircraft and other aircraft of varying performance characteristics now utilize this airspace. Additionally, the number of these aircraft and those operations are expected to increase in the future.

Fortunately, there have been no midair collisions within the Charlotte Class B Airspace. Without the experience of an actual midair collision, estimating the probability of a potential occurrence in the absence of this rule cannot be reliably determined. Due to the project increase in air traffic, there is a potential safety problem. Without

this rule, aviation safety in the Charlotte area will be adversely affected.

#### *Comparison of Costs and Benefits*

The precise reduction in the risk of a midair collision avoided by this rule and its monetary values cannot be estimated at the present time. However, system efficiency will be improved and safety enhanced. In view of the negligible costs of the final rule, coupled with benefits in the form of enhanced safety and system efficiency to all aircraft operators, the FAA has determined this rule will be cost-beneficial. As noted above, a regulatory evaluation of this rule, including a Regulatory Flexibility Determination, has been placed in the docket.

#### **Regulatory Flexibility Determination**

The Regulatory Flexibility Act of 1980 (RFA) ensures that small entities are not unnecessarily and disproportionately burdened by Government regulations. The RFA requires agencies to review rules that may have a significant economic impact on a substantial number of small entities.

The small entities that the final rule could potentially affect are unscheduled operators of aircraft for hire owning nine or fewer aircraft. These unscheduled air taxi operators will be affected only when they are not operating under VFR. Since these operators fly regularly into airports with established radar approach control services, the FAA believes that unscheduled air taxi operators are already equipped to fly IFR. Because they will fly IFR instead of VFR, the proposed rule will not have a significant economic impact on any of them.

#### **International Trade Impact Assessment**

The final rule will neither have an effect on the sale of foreign aviation products or services in the United States, nor will it have an effect on the sale of U.S. products or services in foreign countries. This is because the proposed rule will neither impose costs on aircraft operators nor on U.S. or foreign aircraft manufactures.

#### **Federalism Implications**

The regulations proposed herein will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule will not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

**International Civil Aviation Organization and Joint Aviation Regulations**

In keeping with the U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with ICAO Standards and Practices to the maximum extent practicable. The FAA has determined that this rule will not conflict with any international agreements of the United States.

**Paperwork Reduction Act**

This proposed rule contains no information collection requests requiring approval of the Office of Management and Budget pursuant to the Paperwork Reduction Act (44 U.S.C. 3507 et seq.).

**Conclusion**

For the reasons discussed in the preamble, and based on the findings in the Regulatory Flexibility Determination and the International Trade Impact Analysis, the FAA has determined that this regulation is not a "significant regulatory action" under Executive Order 12866. In addition, the FAA certifies that this regulation will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. This proposal is not considered significant under DOT Order 2100.5, Policies and Procedures for Simplification, Analysis, and Review of Regulations. This rule is cost effective as evidenced by the cost/benefits review statement, included in this Final Rule.

**List of Subjects in 14 CFR Part 71**

Airspace, Incorporation by reference, Navigation (air).

**Adoption of the Amendment**

In consideration of the foregoing, the Federal Aviation Administration amends 14 CFR part 71 as follows:

**PART 71—[AMENDED]**

1. The authority citation for 14 CFR part 71 continues to read as follows:

**Authority:** 49 U.S.C. app. 1348(a), 1354(a), 1510; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp.; p. 389; 49 U.S.C. 106(g); 14 CFR 11.69.

**§71.1 [Amended]**

2. The incorporation by reference in 14 CFR 71.1 of the Federal Aviation Administration Order 7400.9B, Airspace Designations and Reporting Points, dated July 18, 1994, and effective September 16, 1994, is amended as follows:

*Paragraph 3000—Subpart B-Class B Airspace*  
\* \* \* \* \*

**ASO NC B Charlotte, NC [Revised]**

Charlotte/Douglas International Airport (Primary Airport)

(Lat. 35°12'52" N., long. 80°56'36" W.).

Charlotte/Douglas VOR/DME

(Lat. 35°11'25" N., long. 80°56'06" W.).

Gastonia Airport

(Lat. 35°12'01" N., long. 81°09'00" W.).

Area A. That airspace extending upward from the surface to and including 10,000 feet MSL within a 7-mile radius of the Charlotte VOR/DME.

Area B. That airspace extending upward from 1,800 feet MSL to and including 10,000 feet MSL between the 7- and 11-mile radius of the Charlotte VOR/DME, excluding that airspace within a 2-mile radius of the Gastonia Airport.

Area C. That airspace extending upward from 3,600 feet MSL to and including 10,000 feet MSL between the 11- and 25-mile radius of the Charlotte VOR/DME, including that airspace within a 2-mile radius of the Gastonia Airport, excluding that airspace within and below Areas D, E, and F hereinafter described.

Area D. That airspace extending upward from 4,600 feet MSL to and including 10,000 feet MSL between the 20- and 25-mile radius northwest of the Charlotte VOR/DME, bounded on the west by U.S. Highway 321, and bounded on the east by the Marshall Steam Plant Rail Spur; and that airspace between the 20- and 25-mile radius southwest of the Charlotte VOR/DME, bounded on the east by U.S. Highway 21, and bounded on the west by a line due south from the Charlotte VOR/DME 218° radial 20-mile fix to the intersection of the 25-mile arc.

Area E. That airspace extending upward from 6,000 feet MSL to and including 10,000 feet MSL beginning at lat. 35°36'30" N., long. 80°57'45" W., extending counterclockwise on the 25-mile arc of the Charlotte VOR/DME to

U.S. Highway 321, thence south on U.S. Highway 321 until intercepting the 20-mile arc southwest of the Charlotte VOR/DME, thence counterclockwise on the 20-mile arc to the 218° radial of the Charlotte VOR/DME thence due south to the intersection of the 25-mile arc of the Charlotte VOR/DME, thence due west until intercepting the 218° radial of the Charlotte VOR/DME, thence southwest on the 218° radial to the 30-mile fix, thence clockwise on the 30-mile arc to the 328° radial of the Charlotte VOR/DME, thence direct to the point of beginning, excluding that airspace between the 20- and 30-mile radius of the Charlotte VOR/DME between the 242° radial of the Charlotte VOR/DME clockwise to the 293° radial; and that airspace beginning at lat. 35°36'30" N., long. 80°57'45" W., extending clockwise on the 25-mile arc of the Charlotte VOR/DME to long 80°46'00" W., thence due south to the 20-mile arc northeast of the Charlotte VOR/DME, thence clockwise on the 20-mile arc to the 081° radial of the Charlotte VOR/DME, thence west along the 081° radial of the Charlotte VOR/DME, thence west along the 081° radial to the 11-mile fix from the Charlotte VOR/DME, thence direct to the Charlotte VOR/DME 147° radial 25-mile fix, thence clockwise on the 25-mile arc to the intersection of U.S. Highway 21, thence direct to the Charlotte VOR/DME 147° radial 30-mile fix, thence counterclockwise on the 30-mile arc to the Charlotte VOR/DME 025° radial, thence direct to the point of beginning, excluding that airspace east of U.S. Highway 601 between the Charlotte VOR/DME 062° radial clockwise to the 120° radial.

Area F. That airspace extending upward from 8,000 feet MSL to and including 10,000 feet MSL between the 20- and 25-mile radius of the Charlotte VOR/DME from the 242° radial clockwise to the 293° radial of the Charlotte VOR/DME; and that airspace between the 20- and 25-mile radius from the Charlotte VOR/DME between the 062° radial of the Charlotte VOR/DME clockwise to the 120° radial and seat of U.S. Highway 601.

\* \* \* \* \*

Issued in Washington, DC, on May 5, 1995.

**Harold W. Becker,**  
*Manager, Airspace-Rules and Aeronautical Information Division.*

**Note:** This appendix will not appear in the Code of Federal Regulations.

Appendix \_\_\_\_\_ Charlotte, North Carolina, Class B Airspace.

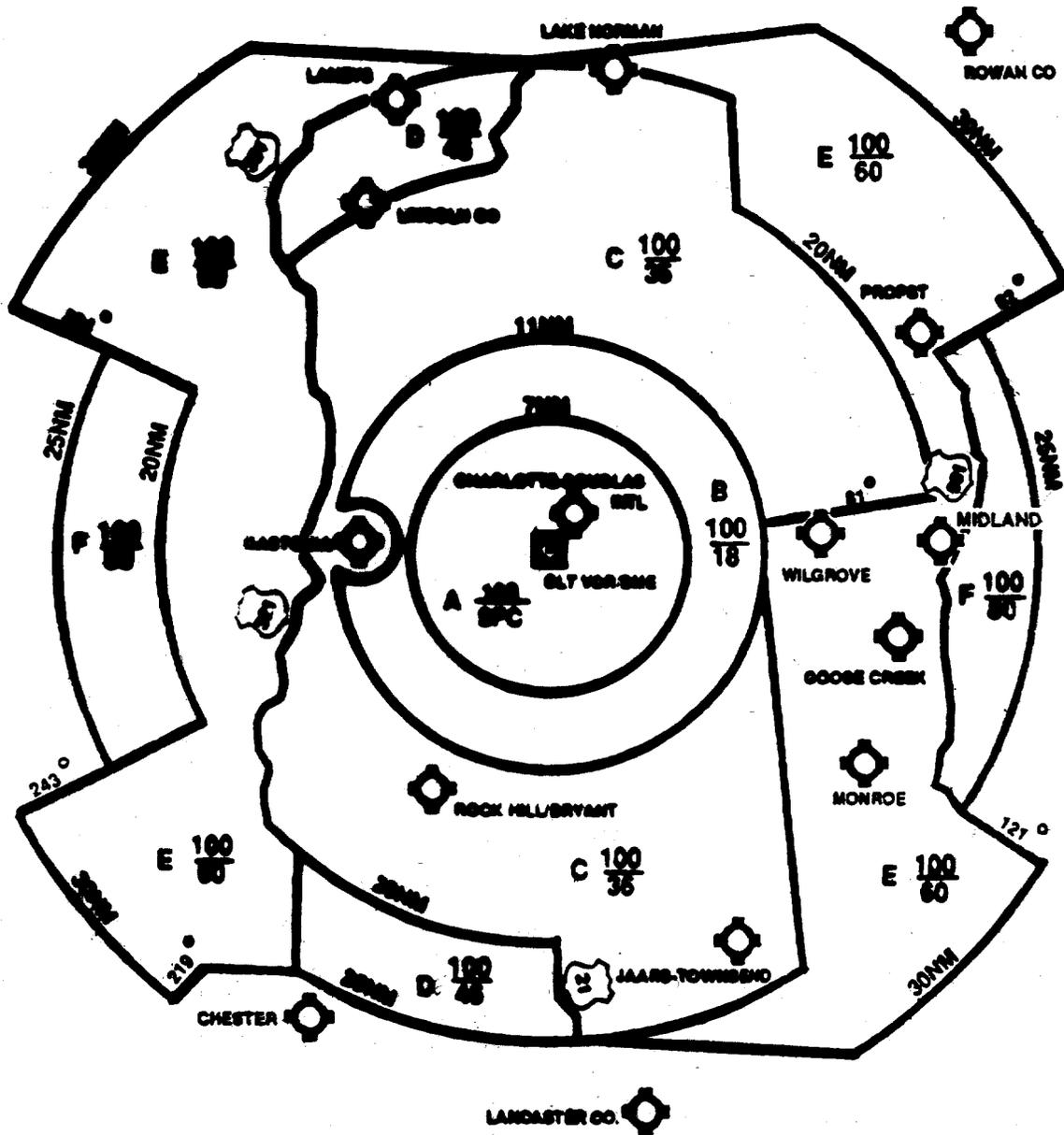
BILLING CODE 4910-13-M

# CHARLOTTE, NORTH CAROLINA CLASS B AIRSPACE AREA

CHARLOTTE/DUOLAS INTERNATIONAL AIRPORT

FIELD ELEVATION - 748 FEET

*(Not to be used for navigation)*



Prepared by the  
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