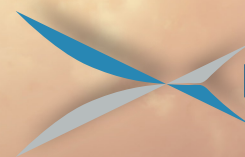


FOREVER FIRST IN FLIGHT

North Carolina Division of Aviation Strategic Plan

Fiscal Years 2020-2024

JULY 2019



DIVISION OF AVIATION
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Our VISION

North Carolina, through the Division of Aviation’s efforts, is recognized for leading innovation in air transportation that connects people and products to markets around the globe.

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Our Mission

The North Carolina Department of Transportation Division of Aviation promotes the economic well-being of North Carolina by developing a safe and robust air transportation system.

Core Functions

As North Carolina’s aviation authority, the Division:

- ▶ Develops the state’s aviation and aerospace economy and workforce.
- ▶ Advises and administers state and federal airport development grants and programs.
- ▶ Builds the state’s unmanned aircraft systems and sector.
- ▶ Conducts aviation safety and airport management education and professional development programs.
- ▶ Provides air transportation that advances state agency missions.

Our Values

- ▶ **Safety** - We are dedicated to providing a safe transportation network and work environment.
- ▶ **Customer Service** - We serve our customers in a respectful, professional and timely manner.
- ▶ **Diversity** - We respect one another while drawing strength from our diverse opinions, ideas and experiences.
- ▶ **Integrity** - We earn and maintain trust through accountability, transparency and data-driven decisions.
- ▶ **Quality** - We pursue excellence in delivering our projects, programs, services and initiatives.
- ▶ **Teamwork** - We work together using our diverse strengths and skills, collaborating to solve problems and serve our communities.
- ▶ **Innovation** - We promote the development and use of new and better solutions.

Forever First in Flight

A Five-Year Plan to Imagine and Accelerate North Carolina's Aviation Future

A century ago, a pair of bicycle mechanics spent six years conducting aeronautical research and experimentation that took them from "bike to flight" with the first successful powered airplane – an innovation that changed the world.

One hundred years from now, we expect the technological advances in manned and unmanned aviation conceived of today will prove as transformational as that first flight at Kitty Hawk.

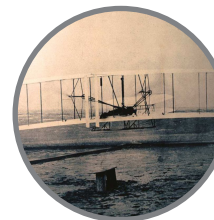
In the pioneering spirit of Orville and Wilbur Wright, the Division of Aviation (DoA) embarks on a five-year plan of research and development to reimagine the future of aviation and prepare our state to embrace it.

We will work collaboratively with partners and stakeholders to identify opportunities and chart the path forward.

Our goal is to shape a future for North Carolina aviation that leverages what it can offer to benefit our people, businesses and communities, and ensure North Carolina remains "forever first in flight."

Strategic Goals FY 2020-2024

- GOAL **1** Lead in innovation.
- GOAL **2** Engage and connect stakeholders.
- GOAL **3** Advance North Carolina's aviation infrastructure.
- GOAL **4** Grow North Carolina's economy.
- GOAL **5** Create a highly effective Division of Aviation.



North Carolina: *First in Flight*

Wilbur and Orville Wright completed the first sustained powered flights in a heavier-than-air machine at Kitty Hawk, North Carolina, on December 17, 1903.

GOAL 1

Lead in Innovation

Drive research, development and integration of new technologies, infrastructure and best practices, and gain recognition for North Carolina's innovative aviation system, people and organizations.

Rapid advances in manned and unmanned aviation offer enormous economic potential for North Carolina. Strategically shaping and steering innovation, and gaining recognition for that work, will serve the state's air transportation needs and attract business investment and other innovators.

Our Strategies

1. Pursue value-add innovations that advance air transportation.
2. Pursue research opportunities that support innovation.
3. Nurture the Division's culture of innovation.
4. Provide leadership in organizations and initiatives that can shape aviation's future.
5. Pursue speaking engagements that advance North Carolina's aviation leadership.
6. Pursue awards that recognize North Carolina aviation innovations.
7. Publicize North Carolina aviation's innovation and leadership.

Performance Metrics

- ▶ Innovations researched, piloted and implemented
- ▶ Research pursued
- ▶ Targeted leadership positions held
- ▶ Targeted speaking engagements completed
- ▶ Targeted awards received
- ▶ Media stories published in targeted publications
- ▶ Social media posts and followers

Our Five-Year Vision for Innovation

- ▶ DoA advances its culture of innovation.
- ▶ DoA initiates and participates in leading-edge pilot programs and research.
- ▶ DoA has a seat at tables that matter.
- ▶ The air transportation community recognizes and turns to North Carolina and the Division of Aviation for leadership and knowledge.

Some Initiatives We'll Pursue



Research and development that supports aviation innovation



State and national outreach to share knowledge about N.C. innovations





GOAL 2

Engage and connect stakeholders

Build partnerships that strengthen North Carolina’s aviation system.

Informed, engaged partners are critical for ensuring that the Division achieves North Carolina’s goals and aspirations for aviation. Strategically identifying and engaging partners will enable us to achieve our vision.

Our Strategies

1. Annually identify targeted stakeholder communities, assess current state, set goals and activate engagement plans.
2. Activate plans to position Division staff as subject matter experts to advance air transportation.
3. Develop tools and materials to support engagement.
4. Evaluate results to shape annual planning.

Performance Metrics

- ▶ Targeted stakeholders engaged
- ▶ Targeted engagements results achieved

Our Five-Year Vision for Engagement

- ▶ Aviation’s stakeholder communities are engaged, knowledgeable and participatory in support of air transportation innovations and initiatives.
- ▶ The Division uses best practices, tools and tactics to support engagement and participation among stakeholders.

Some Initiatives We’ll Pursue



Expanded professional development for public airport managers and development consultants



Collaborative outreach with local airports that expands aviation impacts

NORTH CAROLINA’S AVIATION COMMUNITY



GOAL 3

Advance North Carolina's aviation infrastructure

Lead visioning, planning, development and funding advocacy to build and maintain an integrated air transportation system that meets the state's needs.

North Carolina's aviation system faces rapid innovation, significant economic opportunity and extensive capital and technological improvements to accommodate manned and unmanned aviation, now and in the future. Strategic planning, coordination, staffing, training and funding are required.

Our Strategies

1. Advance airport infrastructure to meet state and community needs.
2. Advance unmanned aircraft infrastructure to support drone use in North Carolina.
3. Develop an integrated financial system that accomplishes all desired functionality.
4. Right size the aircraft fleet to advance state agency missions.
5. Secure funding to advance North Carolina's aviation infrastructure.

Performance Metrics

- ▶ Percent of airports meeting system plan objectives
- ▶ Pavement Condition Index (later, possible Infrastructure Condition Index)
- ▶ Gap between total airport funding needs vs. funding
- ▶ Difference in airport project award amounts vs. actual project cost
- ▶ Average time to pay airport grant project claims
- ▶ Average time from airport grant awards to signed grant agreements
- ▶ Flight Services missions requested vs. fulfilled
- ▶ Percent of targeted flight hours flown per aircraft



Our Five-Year Vision for Infrastructure

- ▶ North Carolina's air mobility infrastructure meets state and community needs.
- ▶ The Division and airports know the condition of air mobility assets and how to maintain them.
- ▶ Other transportation modes and land use planners collaborate with DoA and airports to envision and expand air mobility options.

Some Initiatives We'll Pursue



Development of North Carolina's unmanned air transportation traffic management system



Enhanced grants management system and processes



GOAL 4

Grow North Carolina's economy

Extend the economic benefits and opportunities that aviation enables to every corner of the state.

Seventy-two public airports generate more than \$52 billion in annual economic impact. Emerging drone technologies are expected to transform air transportation and business. Combined, they offer enormous potential for expanding our economy.

Our Strategies

1. Activate an economic development plan for expanding the state's aviation's economy to benefit rural and urban areas, and increase business diversity.
2. Activate a workforce development plan to support the economic development plan and inspire the next generation to pursue air transportation-related careers.
3. Activate an education and training plan to promote aviation safety and support the Division's economic and workforce development plans.

Performance Metrics

- ▶ Economic impact data (business revenues, jobs, personal income, tax revenues)
- ▶ Number of new aviation-related businesses
- ▶ Number of new aviation-related jobs
- ▶ Enrolled/Completed credentials in aviation-related programs

Our Five-Year Vision for the Economy

- ▶ More businesses locate and expand in North Carolina, particularly in rural areas.
- ▶ North Carolina's diverse workforce meets the needs of aviation-related businesses.
- ▶ Airport economic impacts increase.
- ▶ State and federal policies support aviation strategies that increase economic impact.

Some Initiatives We'll Pursue



Recruiting new aviation-related businesses and helping existing ones expand



Collaborating with N.C. educational institutions to build the aviation workforce and talent pipeline

GOAL 5

Create a highly effective Division of Aviation

Develop and maintain planning, talent and operational processes that enable organizational excellence.

Rapid change, significant opportunity and high expectations for North Carolina's aviation sector require the Division to perform at its highest level to achieve maximum impact. Designing and implementing internal processes for work planning, talent development and operations will better enable the Division to achieve its goals.

Our Strategies

1. Adopt a strategic work planning and reporting process.
2. Build and maintain a strong team.
3. Pursue targeted operational and process improvements.
4. Establish and track baseline performance metrics for strategic goals to guide future planning.

Performance Metrics

- ▶ Staff work hours
- ▶ VIP completion rate
- ▶ Vacancy time-to-fill rate
- ▶ Employee engagement score



Our Five-Year Vision for Our Organization

- ▶ Employees are engaged, knowledgeable, participatory and supported in advancing the vision and mission.
- ▶ Staffing and compensation align with duties and responsibilities.
- ▶ Work processes and systems are optimized for efficient, effective execution.

Some Initiatives We'll Pursue

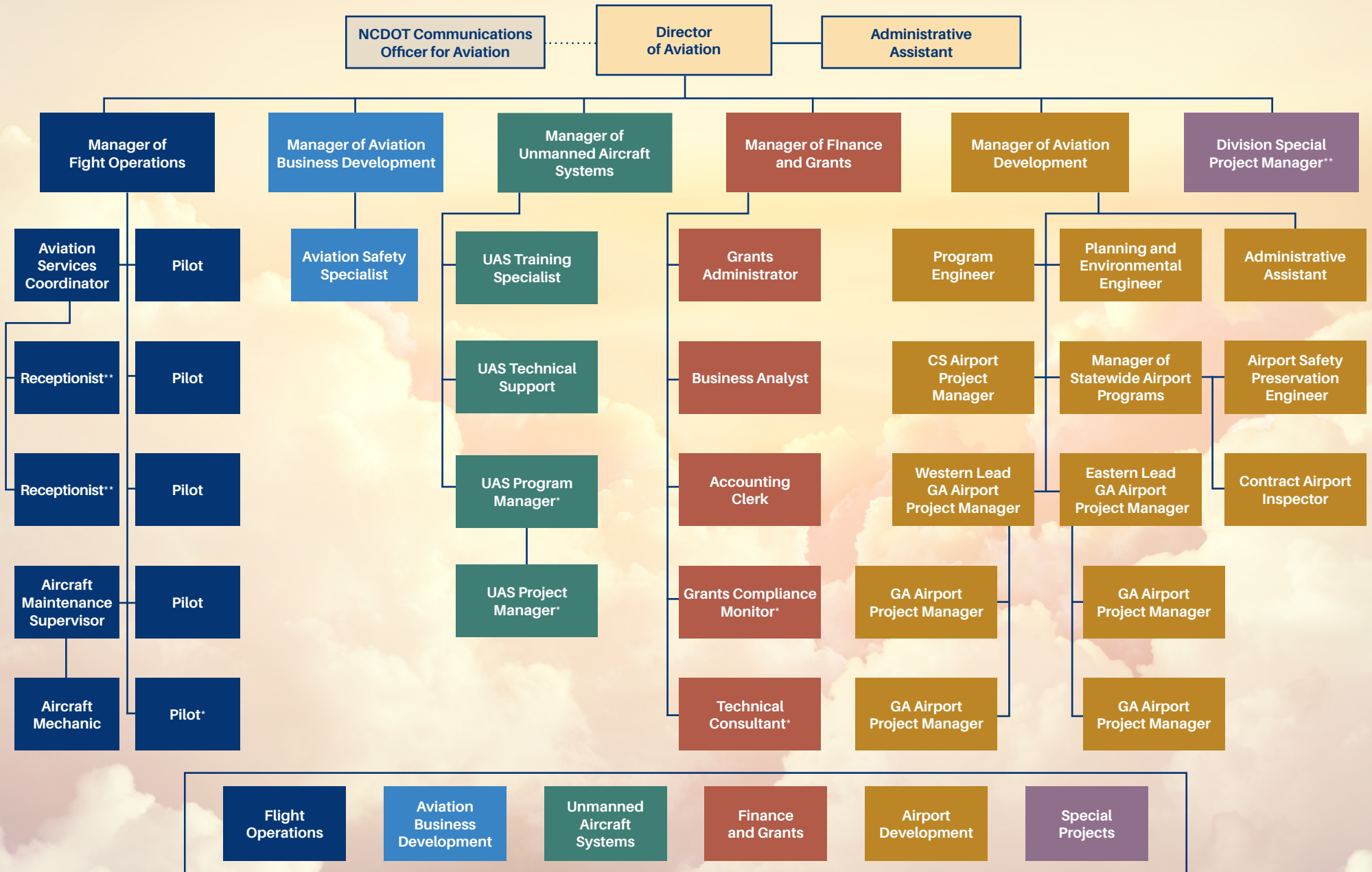


Strategically aligning staff performance measures and organizational structure, infrastructure and budget to support the five-year plan.



Activating a recruitment and retention plan to diversify our staff, build a talent pipeline and reward employee contributions.

NCDOT Division of Aviation Organization Chart



*Contract positions **Temporary positions CS = Commercial Service GA = General Aviation

Milestones

An Aviation Advisory Committee develops policies for state government and evaluates long-term effects of aviation on North Carolina and its citizens.

1940s

General Assembly creates Aviation Specialist position in the Department of Conservation and Development to support airport development.

1965

1974
The Department of Transportation establishes the Division of Aeronautics (now Aviation).



1990
North Carolina becomes one of three states directly administering FAA State Block Grant Program funds for eligible general aviation airports.



Appropriations for Aviation move from the General Fund to Highway Fund.

2005

2013
DoA launches the N.C. Air Technical Assistance Program, a professional development program for airport managers and others, managed by N.C. State University's Institute for Transportation Research and Education.



1920s

North Carolina General Assembly enacts the first aeronautical statutes to guide pilots and local government.

1958

Congress passes the Federal Aviation Act creating the Federal Aviation Agency and funding airport development, prompting North Carolina to disband its Advisory Committee.



1975

DoA begins offering passenger and photogrammetry flight services to support state agency missions.

1992

DoA launches first statewide pavement management program for general aviation airports to save tax dollars and improve quality, later expanding it to include other preservation and safety programs.



2012

DoA's first *Economic Contribution of Airports in North Carolina* report shows the state's 72 public airports contribute \$26 billion annually to the economy, support 108,000 jobs and contribute \$771 million in state and local taxes.

2014

General Assembly creates the Unmanned Aircraft Systems Program in the Division of Aviation to manage and advance drone use in the state.

2015
DoA's N.C. Airports' System Plan uses a new data-driven classification system and objective criteria and categories to guide airport funding and development.

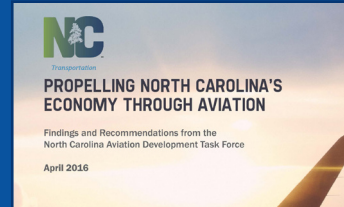


2015

Eligible airports receive funding for capital projects from the N.C. Highway Trust Fund-funded Strategic Transportation Investment.

2016

A Governor-appointed task force publishes *Propelling North Carolina's Economy Through Aviation*, calling for greater state investment in aviation, better leverage of airports to expand the economy and increased training and technical assistance for airports.



2016

DoA launches the nation's first and only testing and permitting system for commercial and government drone operators.

2017

State funding for aviation climbs to \$129 million, the second-highest level of state investment behind Florida, with new funding for commercial service airports, increased funding for general aviation airports and first-ever diversion of state highway use taxes from the N.C. General Fund directly to aviation to support airport development.

2018

North Carolina selected as one of 10 FAA UAS Integration Pilot Program teams to pilot and advise the integration of drone use in the nation.

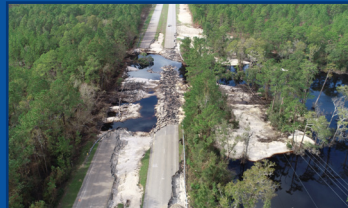
2018

DoA launches a three-year program to integrate drone use across NCDOT in ways that increase safety, efficiency and cost savings.

2018

Inaugural N.C. Drone Summit attracts hundreds of leaders in business, government and academia to explore ways to leverage and safely integrate unmanned aircraft technologies.

2018
DoA launches the first coordinated state drone response to support emergency management of a disaster during Hurricane Florence.



2019

DoA enables the nation's first routine commercial drone flights for pay delivering medical supplies across a health system.



2019

North Carolina: The State of Aviation reports that N.C. airports contribute \$52 billion in annual economic impact, more than 307,000 jobs, \$12.6 billion in personal income and \$2.2 billion in state and local tax.



The Division of Aviation in 2019 enabled the launch of the nation's first routine drone package delivery for pay, in partnership with WakeMed, Matternet and UPS.

“Our goal is to shape a future for North Carolina aviation that leverages what it can offer to benefit our people, businesses and communities, and ensure North Carolina remains *forever first in flight.*”

Bobby Walston, *Aviation Director*
North Carolina Department of Transportation



Mission

The North Carolina Department of Transportation Division of Aviation promotes the economic well-being of North Carolina by developing a safe and robust air transportation system.

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