Introduction

The movement of goods and people is equally important to a thriving community. The Jacksonville region benefits from the efficient and reliable delivery of goods. This chapter outlines how local decision-making can further enhance the movement of people and goods across the MPO area. Aviation and freight are important contributors to the local and regional economy. A balanced approach to moving people and goods will help the region flourish.

Aviation

Aviation includes both the movement of cargo and people. The aviation sector plays a critical role in enhancing the region's economic vitality and connectivity. As a hub for business, tourism, and commerce, aviation infrastructure supports the efficient movement of people and goods domestically and internationally. This section outlines the strategy to maintain and improve air transportation facilities, ensuring they meet the future demands of a growing population and evolving industry standards.

Albert J. Ellis Airport

Albert J. Ellis Airport (OAJ), named in honor of Albert J. Ellis, a long-serving Onslow County Commissioner, is the regional airport located near Jacksonville, North Carolina. OAJ serves as the primary gateway for air travel to and from Onslow County and the surrounding areas. The airport provides vital connectivity for residents, businesses, and military personnel, complementing the region's dynamic economic and social landscape. OAJ serves over 330,000 passengers annually.

This regional airport offers daily flights to major hubs such as Atlanta and Charlotte. OAJ has numerous connections to destinations across the United States and beyond, facilitating business travel, tourism, and personal travel. With its proximity to MCB Camp Lejeune and MCAS New River, OAJ plays a crucial role in supporting the mobility and operational needs of the military community. The airport also contributes significantly to the local economy by attracting travelers, fostering tourism, and providing employment opportunities within the region.

Marine Corps Air Station New River

MCAS New River is a prominent military airfield located near Jacksonville, North Carolina. Established in 1944, it serves as a critical installation for the United States Marine Corps (USMC). MCAS New River primarily supports the 2nd Marine Aircraft Wing, providing a base for various aviation elements, including helicopters and tiltrotor aircraft, which is crucial for USMCs' mission readiness and rapid deployment capabilities.

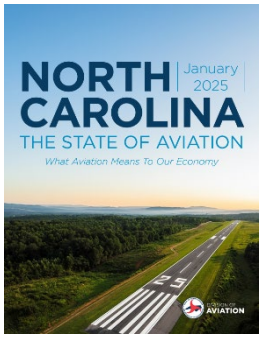
MCAS New River is well-known for its comprehensive training operations, ensuring that Marine Corps aviators, aircrew, and ground personnel are fully prepared for various missions, from combat operations to humanitarian assistance. The station's strategic location and state-of-the-art facilities support extensive training exercises, maintenance, and logistics, making it a vital asset for national defense and international military operations.

In addition to its operational functions, MCAS New River actively engages with the local community through various outreach programs and events, fostering strong relationships and mutual support from the surrounding population. MCAS New River's commitment to excellence and pivotal role in national security underscore its importance within the United States' military infrastructure.

Relevant Planning Efforts

The following planning efforts should be considered as the MPO continues to coordinate with local and state partners to advance aviation in the region.

North Carolina: the State of Aviation



NCDOT Division of Aviation published a report titled *North Carolina: the State of Aviation* in 2025.[3] The biennial economic study shows that the state's 72 airports now contribute more than $88 billion in economic impact annually. This accounts for 11% of North Carolina's gross domestic product (GDP). At a high level, the report outlines the number of jobs, personal income, and tax revenues that aviation supports in North Carolina. Figure 41 is pulled from the North Carolina: the State of Aviation report page 12.

Figure 41: Economic Impacts of North Carolina Airports

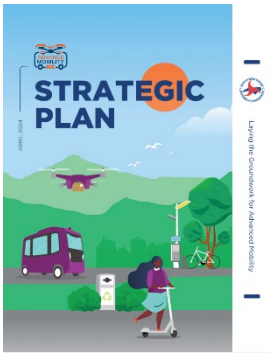
ANNUAL ECONOMIC IMPACTS

AIRPORT TYPE	JOBS	PERSONAL INCOME	STATE AND LOCAL TAXES	ECONOMIC OUTPUT
Commercial Service	396,980	$31,627,590,000	$4,427,180,000	**$80,932,290,000**
General Aviation	30,660	$2,527,990,000	$378,926,000	**$7,185,290,000**
TOTAL	427,640	$34,155,580,000	$4,806,106,000	**$88,117,580,000**

COMMERCIAL SERVICE AIRPORT IMPACTS

AIRPORT AND NAME		CITY/TOWN	JOBS	PERSONAL INCOME	STATE AND LOCAL TAXES	ECONOMIC OUTPUT
OAJ	Albert J. Ellis	Jacksonville	3,805	$205,360,000	$37,950,000	**$612,340,000**
AVL	Asheville Regional	Asheville	22,475	$1,125,920,000	$324,610,000	**$3,855,480,000**
CLT	Charlotte Douglas International	Charlotte	167,045	$15,234,690,000	$2,007,160,000	**$36,578,000,000**
EWN	Coastal Carolina Regional	New Bern	2,145	$119,110,000	$20,260,000	**$346,750,000**
JQF	Concord-Padgett Regional	Concord	5,310	$474,140,000	$66,810,000	**$1,110,350,000**
FAY	Fayetteville Regional	Fayetteville	5,285	$276,980,000	$48,870,000	**$829,230,000**
GSO	Piedmont Triad International	Greensboro	28,990	$3,159,900,000	$385,570,000	**$9,903,900,000**
PGV	Pitt-Greenville	Greenville	1,275	$90,760,000	$15,870,000	**$234,070,000**
RDU	Raleigh-Durham International	Raleigh/Durham	139,745	$9,848,490,000	$1,327,760,000	**$24,130,240,000**
ILM	Wilmington International	Wilmington	20,905	$1,092,240,000	$192,320,000	**$3,331,930,000**
TOTAL			**396,980**	**$31,627,590,000**	**$4,427,180,000**	**$80,932,290,000**

Advance Mobility NC



NCDOT's Division of Aviation and Integrated Mobility Division (IMD) partnered to develop the Advanced Transportation Mobility Strategic Plan.[4] Advanced mobility refers to using innovative technologies and systems designed to improve the safety, efficiency, sustainability, and equity of transportation systems.

The five-year plan focuses on advancing air and ground mobility technologies that improve quality of life, create access and opportunities, and promote safety for all North Carolinians. The report highlights the impact of mobility innovations and technology on the transportation system. As a leader in

[3] https://www.ncdot.gov/divisions/aviation/pages/state-of-aviation.aspx
[4] https://www.ncdot.gov/divisions/aviation/advance-mobility/Documents/advanced-mobility-strategic-plan.pdf

innovation, the State has already established the groundwork to advance new technologies to optimize safety and stimulate local economies.

The action plan outlines the five key factors for successfully leveraging advanced mobility technologies, outlines future actions, and provides a decision-making framework for integrating mobility technologies. The plan identified the following actions for NCDOT to best partner with MPOs and RPOs to progress and elevate advanced mobility:

- Regulatory, Policy, and Process Considerations
    - Review local permitting requirements, state guidance for emerging mobility consistency (i.e., EV, curb management, etc.), and state-level clean transportation planning and collaborate across agencies.
    - Create guidance documents that help MPOs/RPOs quantify impacts and support long-range planning.
    - Coordinate with state agencies and other MPOs/RPOs to identify and address existing legislation that may inhibit accomplishing advanced mobility goals.
    - In support of regional transportation planning studies, conduct tabletop exercises to identify advanced mobility use cases that consider aligning community needs with potential use cases and applications.
    - Establish a working group, committee, or task force to investigate advanced mobility technologies for consideration and incorporation in strategic planning.
    - Informed by state case studies, local understanding, and coordination with regional partners, develop code and zoning amendments that enable advanced mobility technologies.
    - Incorporate advanced mobility integration strategies into long-term planning, leveraging a case study approach to guidance documents building on previous pilots.
- Technical Readiness
    - Match advanced mobility solutions with prioritized local needs.
    - Continue to maintain updated quantification of regional greenhouse gas impacts as the shift to alternative fuels continues and better data becomes available.
    - Continue to work with state and local agencies to facilitate coordinated strategic planning that promotes interoperability and connectedness.

The plan also identified the following potential actions for MPOs and RPOs:

- Public Education and Engagement
    - Leverage content produced by state and federal governments to develop materials that educate local/regional decision-makers, industry, and community stakeholders.
    - Conduct and publicize targeted demonstrations to familiarize the public with various advanced mobility technologies.
    - Amplify messaging of member agencies around advanced mobility, especially when focused on safety, efficiency, emissions, and equity outcomes that could improve quality of life.
- Economic Workforce and Development
    - Identify broadband gaps and opportunities to ensure sufficient connectivity for education, workforce development, and industry investment and innovation.
    - Monitor and identify areas of limited workforce accessibility and strategically invest in accessibility for vulnerable groups in markets with advanced mobility workforce demand.

- Strategic Funding Opportunities

- Collaborate with partners early to strategize about the top grant priorities.
- Determine ways to assemble multiple funding opportunities to leverage the collective investment in advanced mobility opportunities.

JUMPO should continue to partner and coordinate with NCDOT to best incorporate advanced mobility into transportation planning and decision-making.

Relevant Aviation Recommendations

The current STIP (2024-2033) includes the following aviation projects:

- **AV-5804** | Acquire land for roadway relocation, runway protection zone (RPZ), and runway extension.
- **AV-5805** | Acquire land for runway extension and roadway relocation.
- **AV-5806** | Extend Runway 23 and Taxiway A.

NCDOT and the Federal Aviation Administration (FAA) allocate funds for all aviation projects.

Facility Projects

The aviation-supportive facility projects identified in the JUMPO 2050 MTP include the following:

- **M-02** | NC 111 from US 258 to Fowler Manning Rd (Modernization)
- **R-01** | NC 111 from Haw Branch Rd to Albert J. Ellis Airport Rd (Realignment)

Freight

Freight transportation is the movement of goods and commodities across different transportation modes, including rail, truck, air, and marine. As this movement of goods serves as the backbone of the economy, facilitating the seamless flow of goods that sustain businesses, industries, and households is crucial. This section is designed to address our freight network's current and future needs, ensuring it remains efficient, reliable, and resilient. Freight plays a critical role in the regional and national supply chain. By fostering collaboration with public and private stakeholders, the JUMPO 2050 MTP can optimize freight operations, improve safety, and minimize environmental impacts, thereby supporting sustained economic growth and quality of life in the region.

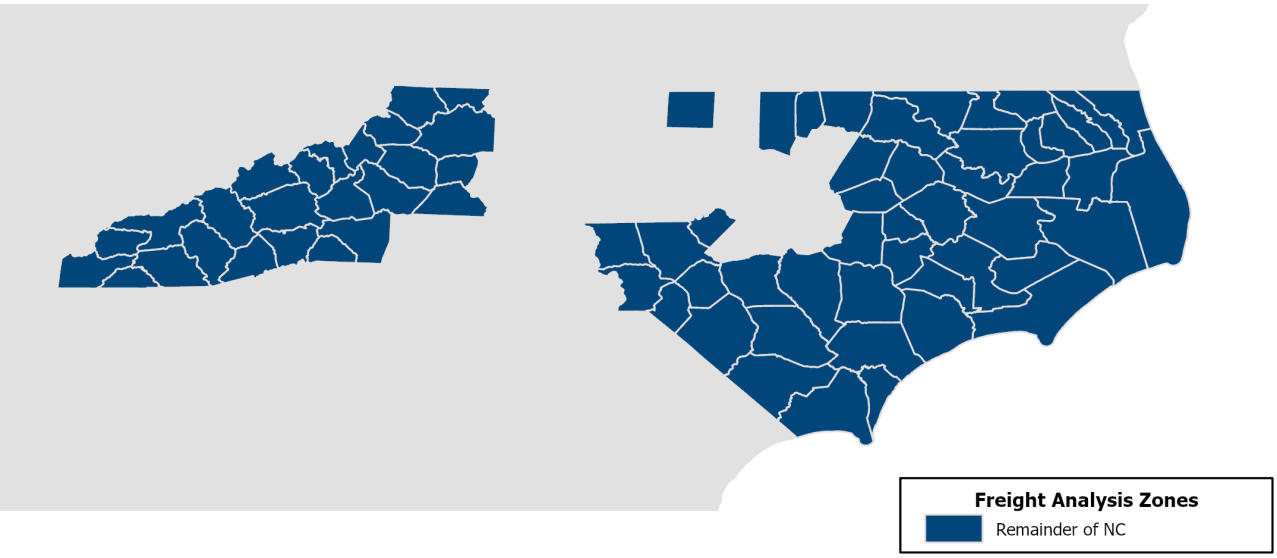
The NCDOT North Carolina Truck Network (NCTN) Map identifies routes that are allowed or restricted for freight trucks[5]. Although primarily intended for NCDOT traffic safety users, by defining this network, NCDOT can help manage and control the flow of commercial vehicles to ensure that the corridors are suitable for heavy loads. The following routes in the MPO area are included in the NCTN: US 17, US 258, and NC 24. The MPO is an active part of the state's well-connected freight network.

Freight Modal Profiles

FHWA's Freight Analysis Framework (FAF) is a dataset that tracks freight transportation between states and metropolitan areas.[6] FAF has three types of freight flows: weight, value, and activity. The most recent version of FAF, version 5.6.1, was released in 2023. The base year of FAF is 2017, with modal and commodity projects estimated over the next 30 years.

Onslow County is in the FAF zone called Remainder of North Carolina. This area encompasses eastern and western portions of the state, which can be seen in Figure 42. The following section will identify the breakdown of freight movements by mode for the Remainder of North Carolina Zone. It is possible that the MPO area's freight modal trends are different than the summary provided on subsequent pages; nevertheless, the data provide an indication of conditions.

FIGURE 42: FREIGHT ANALYSIS ZONES



[5] https://www.arcgis.com/apps/mapviewer/index.html?webmap=a8f091b8fadc4c5d8bb905bf44556a5d
[6] https://ops.fhwa.dot.gov/freight/freight_analysis/faf/

Freight is the backbone of commerce throughout the United States and a key regional and national supply chain component. As a category, freight can include a variety of modes including truck, rail, water, and air. Currently, in the Remainder of North Carolina Zone, trucks are the primary shipment mode, making up roughly 65% of all freight trips. Trucks can move a large quantity of goods for a low cost over long distances, making them an effective mode of transportation.

Rail is typically used to transport heavy, bulk commodities that do not have time-sensitive schedules for delivery over long distances. Rail is often associated with intermodal freight transportation, defined as the movement of goods across multiple modes. The interconnected nature of freight highlights the need for a strong, resilient transportation system.

Table 22 and Table 23 show freight distribution by mode for the Remainder of NC from the FHWA's FAF dataset in 2017 and projected to 2050.

TABLE 22: FREIGHT SHIPMENTS IN REMAINDER OF NORTH CAROLINA BY MODE (2017)

Freight Mode	Sum in Thousand Tons (2017)	Percentage
Truck	12,800,256	65%
Rail	1,615,503	8%
Water	914,839	5%
Air	6,470	>1%
Multiple Modes	687,873	3%
Pipeline	3,450,602	17%
Other	102,197	1%
No Domestic Mode	208,641	1%
Total	**19,786,384**	**100%**

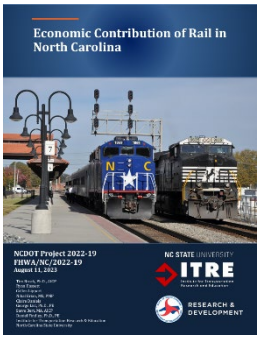
TABLE 23: FREIGHT SHIPMENT IN REMAINDER OF NORTH CAROLINA BY MODE (2017 TO 2050)

Freight Mode	Sum in Thousand Tons (2017)	Sum in Thousand Tons (2050)
Truck	12,800,256	19,304,297
Rail	1,615,503	1,910,938
Water	914,839	1,238,054
Air	6,470	13,037
Multiple Modes	687,873	1,188,749
Pipeline	3,450,602	5,102,468
Other	102,197	44,250
No Domestic Mode	208,641	88,695
Total	**19,786,384**	**28,890,491**

Relevant Planning Efforts

The following planning efforts should be considered as the MPO continues coordinating with local and state partners to advance freight in the region.

Economic Contribution of Rail in North Carolina



The Economic Contribution of Rail in North Carolina report was published in partnership with the Institute for Transportation Research and Education (ITRE) at N.C. State University and the NCDOT Rail Division.[7] The report highlights the annual impacts of the rail sector, including freight, passenger, and rail tourism. The North Carolina rail system is estimated to facilitate over $20 billion in annual economic output. Figure 43 highlights the North Carolinas' rail system.

The report details the economic outputs at the statewide level:

$20+ Billion Annual Statewide Economic Output[1]

$990 Million State & Local Tax Revenue Supported[1]

88,000 Jobs Supported by Rail[1]

860 Businesses Loading Directly onto Rail[1]

116 Rail Industry Businesses[1]

The system overview showcases the features of rail freight in North Carolina. The system is made up of two Class I railroads and 24 shortlines. In the JUMPO area, there is a shortline that connects to an NC Railroad Company Corridor.

3,416 Track Miles

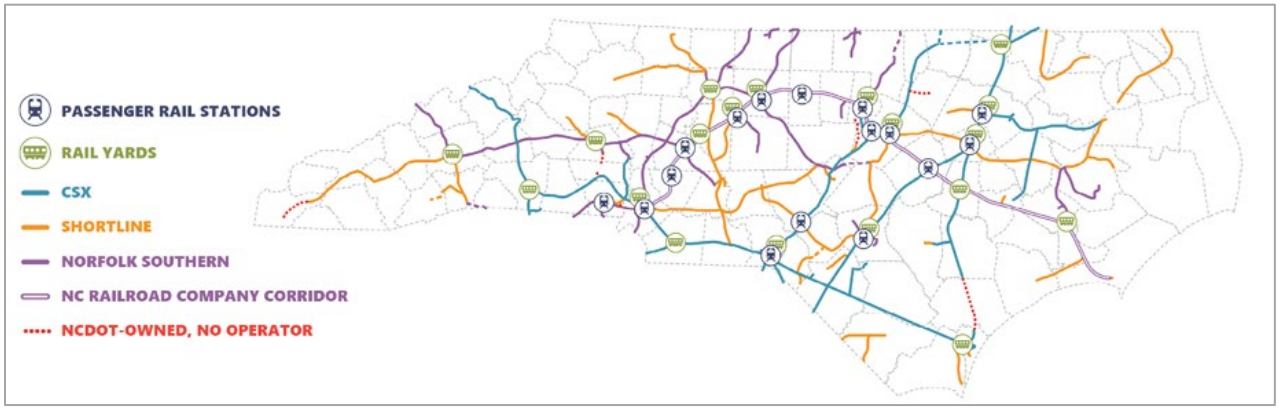
26 Railroads

83 Intermodal and Transload Facilities

563 Miles of Passenger Rail Corridor

5 Military Installations Served by STRACNET Designated Rail Corridors

FIGURE 43: RAIL IN NORTH CAROLINA



[7] https://www.ncdot.gov/divisions/rail/Documents/economic-contributions-rail-nc-full-report.pdf

Statewide Multimodal Freight Plan

NCDOT created the Statewide Multimodal Freight Plan in 2017.[8] The Plan established goals and strategies to improve economic competitiveness, enhance quality of life, and increase jobs. In 2022, the department updated the plan to reflect new federal requirements. The intersection between previous planning efforts and new priorities can be seen below in Figure 44; this can be found on page 5 of the plan.

FIGURE 44: SUPPORT OF NATIONAL GOALS AND PREVIOUS STATE PLANNING EFFORTS

NC Freight Plan	Economic Competitiveness	Mobility and Reliability	Safety and Security	Innovative Technology	Asset Management	Environmental Sustainability and Livability	Collaboration and Partnership	Sustainable Funding
MAP-21 and FAST Act	Economic Competitiveness	Innovation and Advanced Technology			State of Good Repair	Environmental	Multistate Connectivity	
	Economic Efficiency and Productivity	Reliability	Safety, Security, Efficiency, Resiliency					
NC 25 Vision	Economic Competitiveness	Mobility and Reliability	Safety and Security	Innovative Technology	Asset Management	Environmental Sustainability and Livability	Collaboration and Partnership	Sustainable Funding
NC 2040 Plan	Economic Opportunity	Mobility and Reliability	Safety and Security	Advanced Technology	Asset Management	Environmental Stewardship	Collaboration and Partnership	Sustainable Investments and Financial Stewardship
NC STC	Economic Development and Prosperity	Mobility, Reliability, and Connectivity						

A critical supply chain focus outlined in the Statewide Multimodal Freight Plan is military freight. As an economic driver, military freight includes personnel, supplies, and equipment. Eastern North Carolina supports a military-related economic impact of $48 billion. Two of the following challenges were cited in the plan as contributing factors to base expansion and realignments:

- Limited rail cargo opportunities for most military bases due to lack of access and requirements for minimum loads, particularly in the case of heavy equipment.
- Bridge conditions can restrict movements of large equipment, resulting in the need to move equipment by rail, significantly increasing the cost.

The MPO should continue to coordinate with regional partners to improve freight movement and connectivity, especially regarding military-related freight.

[8] https://connect.ncdot.gov/projects/planning/Statewide-Freight-Plan/Pages/default.aspx

Facility Projects

The following JUMPO 2050 MTP projects address the freight network's current and anticipated needs. Table 24 highlights the freight-supportive improvements.

TABLE 24: FREIGHT SUPPORTIVE IMPROVEMENTS

ID	Name	From	To	Type
AM-01	US 17 (Wilmington Hwy)	Onslow Pines Rd	High Hill Rd	Access Management
AM-03	NC 24 (Lejeune Blvd)	NC 24 BUS (Johnson Blvd)	NC 172	Access Management
AM-05	Gum Branch Rd/Bell Fork Rd	Western Blvd	NC 24 (Lejeune Blvd)	Access Management
AM-07	NC 53 (Western Blvd)	Gum Branch Rd	US 17	Access Management
AM-09	NC 24 (West Corbett Ave)	Belgrade-Swansboro Rd	Front St	Access Management
AM-14	US 258 (Richlands Hwy)	Koonce Fork Rd	South Wilmington St	Access Management
AM-15	US 258 (Richlands Hwy)	Pony Farm Rd	Rhodestown Fire Department Rd	Access Management
IS-01	NC 24	Onslow County Boundary	NC 24 (Lejeune Blvd)	Upgrade to Interstate
W-02	NC 53 (Burgaw Hwy)	US 258/NC 24 (Richlands Hwy)	Holly Shelter Rd	Widening
W-06	NC 172	US 17	NC 210	Widening
W-17	US 17 (Wilmington Hwy)	US 17 BUS (Marine Blvd)	US 17 (Marine Blvd)	Widening