# AIR AMBULANCE FIXED-WING (CRITICAL CARE TRANSPORT)

## DESCRIPTION
An Air Ambulance Fixed-Wing (Critical Care Transport) is a single resource that includes a single or twin-engine, jet or propeller airplane, pilot, and crew. This resource provides rapid transportation of critical care patients between hospitals. Factors such as capabilities and configuration of the individual aircraft, capabilities of the pilot, qualifications of the medical crew, and weather conditions determine the range of transport.

## RESOURCE CATEGORY
Emergency Medical Services

## RESOURCE KIND
Aircraft/Team

## OVERALL FUNCTION
The Air Ambulance Fixed-Wing (Critical Care Transport) provides transportation, evacuation, and emergency medical care for patients via fixed-wing aircraft from one medical facility to another.

## COMPOSITION AND ORDERING SPECIFICATIONS
1. Discuss logistics for deploying this resource, such as security, lodging, resupply of medical services, transportation, and meals, prior to deployment
2. This team typically works 12 hours per shift, is self-sustainable for 72 hours, and is deployable for up to 14 days; discuss self-sufficiency prior to deployment
4. Requestor will provide transportation (including for patient care personnel to and from the airhead for the sending and receiving medical facilities), food, and rest facilities unless other arrangements exist
5. Provider confirms the maximum distance the Air Ambulance Fixed-Wing will transport the patient to ensure the ordering of the appropriate aircraft
6. Provider confirms the appropriate length of the runway is available for takeoff and landing
7. Provider confirms the appropriate fuel (jet fuel vs. aviation gas) and oil is available for the requested aircraft
8. Provider determines any maintenance limitations (such as number of hours the aircraft can fly before removal for routine maintenance)
9. Requestor should identify Fixed Operating Base (FOB) facilities to support air mission logistics
10. Requestor may order backup supplies and equipment, depending on number of patients and type of event
11. Requestor should specify specialty care services necessary, as number of personnel will vary with capacity of aircraft and mission
12. Requestor can order an Aeromedical Transport Manager for administrative and logistics support
13. Requestor should specify personnel required to transport patient based on patient acuity
14. Requestor must notify provider if family member(s) will accompany patient to ensure sufficient space in aircraft
15. This team does not provide transport of patients with infectious diseases as it requires specialized teams and equipment compliant with Centers for Disease Control and Prevention (CDC) guidance

Each type of resource builds on the qualifications of the type below it. For example, Type 1 qualifications include the qualifications in Type 2, plus an increase in capability. Type 1 is the highest qualification level.

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>TYPE 1</th>
<th>TYPE 2</th>
<th>TYPE 3</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPACITY PER TEAM PATIENT LOAD</td>
<td>3 litter patients or bassinets</td>
<td>2 litter patients or bassinets</td>
<td>1 litter patient</td>
<td>All types capable of transporting patients requiring airway and ventilator support or continuous monitoring.</td>
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<tr>
<td>EQUIPMENT PER TEAM MEMBER PERSONAL PROTECTIVE EQUIPMENT (PPE)</td>
<td>Same as Type 2</td>
<td>Same as Type 3</td>
<td>PPE is mission-specific and may include:</td>
<td>The following standards address PPE: Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulation (CFR) Part 1910.134: Respiratory Protection and Part 1910.1030: Bloodborne Pathogens.</td>
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<tr>
<td>EQUIPMENT PER TEAM PATIENT CARE AND MEDICAL LEVEL</td>
<td>Same as Type 2</td>
<td>Same as Type 3</td>
<td>1. Critical care supplies and equipment 2. Onboard power inverter capable of converting aircraft current for use with specialized medical equipment (such as intra-aortic balloon pump or neonatal isolette)</td>
<td>1. Equipment for high-acuity patients is mission-specific and may include: IV pumps, invasive monitoring, pressure support devices, isolettes, heart-lung bypass support, specialized medications, and fetal monitoring. 2. Requestor should communicate needs in advance regarding special patient populations with high-acuity needs, such as neonatal and pediatric transfers, heart-lung bypass support, invasive monitoring, and high-risk obstetrics, to ensure that the equipment and crew are mission-capable. 3. May require separate aircraft equipment/supply aeromedical evacuation treatment kit.</td>
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<td>PERSONNEL PER TEAM MANAGEMENT AND OVERSIGHT</td>
<td>Same as Type 2</td>
<td>Same as Type 3</td>
<td>1 - National Incident Management System (NIMS) Type 2 Aeromedical Transport Officer</td>
<td>NIMS Type 2 Aeromedical Transport Officer should be physically present or in direct radio or phone communication for medical direction.</td>
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<td>PERSONNEL PER TEAM MINIMUM</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>Not Specified</td>
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<td>PERSONNEL PER TEAM SUPPORT</td>
<td>Same as Type 2, PLUS: 3 - NIMS Type 2 Registered Nurse, NIMS Type 1 Aeromedical Transport Paramedic, or NIMS Type 1, 2, or 3 Aeromedical Transport Officer</td>
<td>Same as Type 3, PLUS: 1 - Pilot 1 - NIMS Type 2 Registered Nurse, NIMS Type 1 Aeromedical Transport Paramedic, or NIMS Type 1, 2, or 3 Aeromedical Transport Officer</td>
<td>1 - Pilot 1 - NIMS Type 2 Registered Nurse, NIMS Type 1 Aeromedical Transport Paramedic, or NIMS Type 1, 2, or 3 Aeromedical Transport Officer</td>
<td>1. Requestor, provider, or Authority Having Jurisdiction (AHJ) may increase pilots based on mission needs, aircraft type, and flying conditions. 2. NIMS Type 2 Registered Nurse has specialties in critical care and flight nursing. 3. Additional aircrew may include non-medical personnel for flight assistance and aircraft maintenance purposes. 4. The pilot is not a NIMS typed position.</td>
</tr>
</tbody>
</table>
NOTES
Nationally typed resources represent the minimum criteria for the associated component and capability.

REFERENCES
1. FEMA, NIMS 509: Aeromedical Transport Manager
2. FEMA, NIMS 509: Aeromedical Transport Officer
3. FEMA, NIMS 509: Aeromedical Transport Paramedic
4. FEMA, NIMS 509: Registered Nurse