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 working conditions, length of deployment, security, lodging, resupply of medical services, transportation, and meals, prior to deployment 2. The Federal Aviation Administration places restrictions on crew duty in 14 Code of Federal Regulations (CFR) Part 117 3. 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 4. Provider confirms the maximum distance the Air Ambulance Fixed-Wing will transport the patient to ensure the ordering of the appropriate aircraft 5. Provider confirms the appropriate length of the runway is available for takeoff and landing 6. Provider confirms the appropriate fuel (jet fuel vs. aviation gas) and oil is available for the requested aircraft 7. Provider determines any maintenance limitations (such as number of hours the aircraft can fly before removal for routine maintenance) 8. Requestor should identify Fixed Operating Base (FOB) facilities to support air mission logistics 9. Requestor may order backup supplies and equipment, depending on number of patients and type of event 10. Requestor should specify specialty care services necessary, as number of personnel will vary with capacity of aircraft and mission 11. Requestor can order an Aeromedical Transport Manager for administrative and logistics support 12. Requestor should specify personnel required to transport patient based on patient acuity 13. Requestor must notify provider if family member(s) will accompany patient to ensure sufficient space in aircraft 14. 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.

COMPONENT	TYPE 1	TYPE 2	TYPE 3	NOTES
MINIMUM PERSONNEL PER TEAM	8	5	3	Not Specified
MANAGEMENT AND OVERSIGHT PERSONNEL PER TEAM	Same as Type 2	Same as Type 3	1 - National Incident Management System (NIMS) Type 2 Aeromedical Transport Officer	NIMS Type 2 Aeromedical Transport Officer should be physically present or in direct radio or phone communication for medical direction.

COMPONENT	TYPE 1	TYPE 2	TYPE 3	NOTES
SUPPORT PERSONNEL PER TEAM	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	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	1 - Pilot 1 - NIMS Type 2 Registered Nurse, NIMS Type 1 Aeromedical Transport Paramedic, or NIMS Type 1, 2, or 3 Aeromedical Transport Officer	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.
PATIENT LOAD CAPACITY PER TEAM	3 litter patients or bassinets	2 litter patients or bassinets	1 litter patient	All types capable of transporting patients requiring airway and ventilator support or continuous monitoring.
PATIENT CARE AND MEDICAL LEVEL EQUIPMENT PER TEAM	Same as Type 2	Same as Type 3	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)	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.
PERSONAL PROTECTIVE EQUIPMENT (PPE) EQUIPMENT PER TEAM MEMBER	Same as Type 2	Same as Type 3	PPE is mission-specific and may include: 1. Protective footwear 2. Protective clothing 3. Gloves 4. Masks 5. Respirators 6. Hearing Protection	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.

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
5. FEMA, National Incident Management System (NIMS), October 2017
6. American College of Surgeons Committee on Trauma (ACS-COT), National Association of EMS Physicians (NAEMSP), American College of Emergency Physicians, EMSC Partnership for Children, and the American Academy of Pediatrics. Equipment for Ambulances. Revised 2013
7. Federal Aviation Administration (FAA) 14 Code of Federal Regulations (CFR) Part 117: Flight and Duty Limitations and Rest Requirements: Flight Crew Members, latest edition adopted
8. Occupational Safety and Health Administration (OSHA) 29 CFR Part 1910.120: Hazardous Materials Awareness, latest edition adopted
9. OSHA 29 CFR Part 1910.134: Respiratory Protection, latest edition adopted
10. OSHA 29 CFR Part 1910.1030: Bloodborne Pathogens, latest edition adopted