

AIR AMBULANCE ROTARY-WING (CRITICAL CARE TRANSPORT)

DESCRIPTION	An Air Ambulance Rotary-Wing (Critical Care Transport) is a helicopter that provides critical care and rapid transportation of patients from scenes, established pick-up sites, or medical facilities to medical facilities. The range of transport varies by several factors, such as capabilities and configuration of the individual aircraft, capabilities of the pilot, qualifications of the medical crew, and environmental/weather conditions.		
RESOURCE CATEGORY	Emergency Medical Services	RESOURCE KIND	Aircraft/Team
OVERALL FUNCTION	The Air Ambulance Rotary-Wing (Critical Care Transport) provides critical care, evacuation, and transportation services via rotary-wing aircraft from scenes, established pick-up sites, or medical facilities to medical facilities	COMPOSITION AND ORDERING SPECIFICATIONS	<ol style="list-style-type: none"> 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 3. The Federal Aviation Administration places restrictions on crew duty in 14 Code of Federal Regulations (CFR) Part 117 4. Requestor will provide transportation (including patient care personnel to and from the landing zone (LZ) for the sending and receiving medical facilities), food, and rest facilities unless other arrangements exist 5. Provider confirms an LZ of sufficient access and security to ensure the safety of the air and ground personnel, victims, spectators, and other on-site individuals 6. Requestor may order backup supplies and equipment, depending on number of patients and type of event 7. Requestor can order an Aeromedical Transport Manager for administrative and logistics support 8. Requestor should provide number of patients, passengers, and their weights, transport distance, and equipment requirements 9. Requestor should specify personnel required to transport patient based on patient acuity 10. 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

RESOURCE TYPES			TYPE 1	TYPE 2	NO TYPE 3	NO TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Personnel	Per Team	Management and Oversight	Same as Type 2	1 - National Incident Management System (NIMS) Type 2 Aeromedical Transport Officer	Not Applicable	Not Applicable
			NOTES: NIMS Type 2 Aeromedical Transport Officer should be physically present or in direct radio or phone communication for medical direction.			



RESOURCE TYPES			TYPE 1	TYPE 2	NO TYPE 3	NO TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Personnel	Per Team	Minimum	5	3	Not Applicable	Not Applicable
NOTES: Not Specified						
Personnel	Per Team	Support	Same as Type 2, 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	Not Applicable	Not Applicable
NOTES: 1. All Types capable of transporting patients requiring airway and ventilator support or continuous 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. Requestor, provider, or Authority Having Jurisdiction (AHJ) may increase pilots based on mission needs, aircraft type, and flying conditions. 4. NIMS Type 2 Registered Nurse has specialties in critical care and flight nursing. 5. Additional aircrew may include non-medical crew members for flight assistance and aircraft maintenance purposes. 6. The pilot is not a NIMS typed position.						
Equipment	Per Team	Patient Care and Medical Level	Same as Type 2	1. Critical care, advanced life support (ALS), and basic life support (BLS) 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)	Not Applicable	Not Applicable
NOTES: 1. ALS equipment for high-acuity patients is mission-specific and may include IV pumps, invasive monitoring, pressure support devices, specialized medications, and fetal monitoring. 2. May require separate aircraft equipment/supply aeromedical evacuation treatment kit.						
Capacity	Per Team	Patient Load	2 litter patients	1 litter patient	Not Applicable	Not Applicable
NOTES: Not Specified						

Superseded



RESOURCE TYPES			TYPE 1	TYPE 2	NO TYPE 3	NO TYPE 4
COMPONENT	METRIC/ MEASURE	CAPABILITY				
Equipment	Per Team	Personal Protective Equipment	Same as Type 2	PPE is mission-specific and may include: 1. Protective footwear 2. Protective clothing 3. Gloves 4. Masks 5. Respirators 6. Hearing Protection	Not Applicable	Not Applicable
			NOTES: The following standards address PPE: Occupational Safety and Health Administration (OSHA) 29 CFR Part 1910.134: Respiratory Protection and Part 1910.1030: Bloodborne Pathogens.			

Superseded

COMMENTS

1. In complex air operations with multiple aircraft, additional staff will be necessary to ensure the ongoing availability of resources to support the mission assignment safely and effectively.
2. Ground safety assurance and traffic control are important support requirements for injury and crash prevention. This support may be significant depending on the size and location of the incident.
3. Many factors, such as the nature of the mission, logistics, intensity of demand, duration of service activity, and allowance for rest periods, determine the estimation of the quantity of air ambulance resources.
4. Aircraft maintenance requirements may occur during deployment. The Aeromedical Transport Manager plans aviation maintenance. Plan hangar facilities for all extended operations. Address fueling capabilities in advance.
5. Aircraft communications equipment may be programmable for interoperability, but requestor should verify this capability. Plan for augmenting existing communication equipment to allow Rotary-Wing aircraft to communicate with air operations coordination center. Coordination with ground ambulance service is necessary.
6. Electrical power should be available for recharging medical equipment and maintaining appropriate temperatures for blood (if necessary) and medications.
7. Weather is a limiting factor in patient transport.
8. Aircraft are the most expensive and least efficient option for moving patients and should therefore be limited to only those situations where they are the best, or only, option available.

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. 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)
6. Federal Aviation Administration (FAA) 14 Code of Federal Regulations (CFR) Part 117: Flight and Duty Limitations and Rest Requirements: Flight Crew Members
7. Occupational Safety and Health Administration (OSHA) 29 CFR Part 1910.120: Hazardous Materials Awareness, latest edition adopted
8. OSHA 29 CFR Part 1910.134: Respiratory Protection, latest edition adopted
9. OSHA 29 CFR Part 1910.1030: Bloodborne Pathogens, latest edition adopted

NOTES

Nationally typed resources represent the minimum criteria for the associated component and capability.

Superseded