

Name of NSSR Theme: Road Safety/Support
Name of SMART Connect Theme: COPQ/Drone Vision

SMART WARD PORTFOLIO

Name of service enabler/person: KSFES

Pincode(s) applicable:

Type of portfolio:

Personal/ Business / Community welfare / Government / Ease of SMART Ward Portfolio

Ward(s) / Ward Numbers:

SMART Ward Project Centre Pincode (if applicable):

SMART Ward Project Centre Contact No(s):

DL number or
AADHAAR CARD
number or
SMART Ward
Portfolio
number

SMART Ward Accountability Level:

Personal interest/ RTO rules & regulations based/ Government rules & regulations based/Service enabling network based/ Service interaction network based/ COPQ/Drone Vision (COPQ-or-DV) Continuum based/technology based/ Not known

SMART Ward Portfolio Valid from:

SMART Ward Portfolio Valid till:

PMS: Preparedness
Mitigation Support



SMART Connect Portfolio



PRM: Preparedness
Responsiveness Mitigation



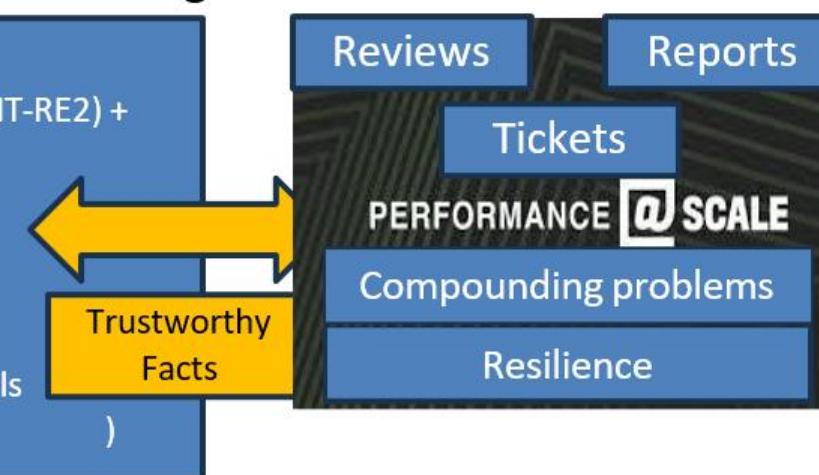
SMART Ward Portfolio

SMART Road Safety Score

Focus on Safer Commuting

Road safety editioning implementation via scores such as:

- Regular experience (RIT-RE1) + Unmanaged experience (RIT-RE2) +
- Combo experience (RIT-RE1.2)
- Road System dynamics risk (RIT-RE3) +
- FESA responsiveness risk (RIT-RE5)
- FESA for CCMA issues risk (RIT-RE4) +
- PRM responsiveness risk (RIT-RE5) +
- NSSR Theme Units risk (RIT-RE6) with non-compliant levels
As NSSR Units ()



CCMA: Climate Change Mitigation and Adaptation

SMART Road Safety Score

Focus on Safer Commuting

Domains

- Roads & Road Systems
- Road Arboriculture
- Road Infrastructure
- Traffic Engineering (TE)
- Traffic Control deployments
- Immersive TE deployments
- Commuter safety deployments
- Goods transportation networks/supply chains
- BSNL/TELECOM/similar deployments
- BESCOM /similar deployments
- BWSSB / similar deployments
- Healthcare services deployments
- Medical supply services
- Educational institutions/in-situ sites/campuses
- EV Infrastructure/Flexi-fuel pumps
- Automobile dealer networks
- Automobile service centres/businesses
- Mobile Vehicle Assistance Units (MVAU)
- MSME Manufacturers
- MSME Service deployments
- Corporate offices/campuses
- KSFES deployments
- FESA auditable buildings/sites/complexes
- Fast Track PRM deployments

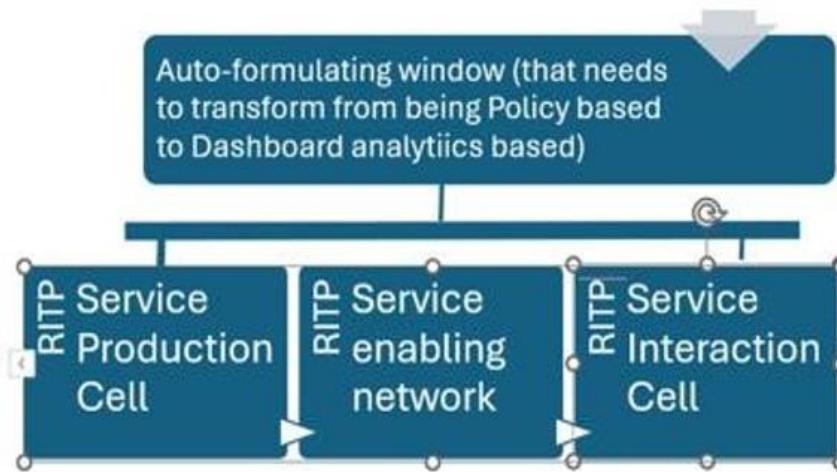


- Border roads
- Flyovers
- Bridges
- Underpasses
- Link roads, road corridors
- Ring roads
- Connecting roads
- Road
- Stretch
- Route



- Road Safety Editioning
- QOI/QOP/QOO/QOS design
- QP/CQI turnover rate
- Deep Interaction Link PRM level
- Non-conventional vehicle usage PRM level

SMART Road Safety Score System



SMART Ward Portfolio Contact Numbers

Toll free number:



Names of location centres and their contact numbers

Names of regional centres and their contact numbers

Name of nearest city centres and their contact numbers



If found please return to:

ROAD INFRASTRUCTURE TRANSFORMATION

- Service Production Connect Card
- Service Enabling Connect Card
- Service Interaction Connect Card
- PMS Domain Level Card
- PRM Domain Level Card
- Road Safety Level Card

Assisting Primary Work Areas for the KSFES

 ROAD SAFETY - OUR NATIONAL SAFETY AND SOCIAL RESPONSIBILITY

Sl No	Nature of work	Applicable for NSSR Theme
1	The Karnataka State Fire and Emergency Services (KSFES) primarily focuses on firefighting, rescue operations, and disaster management. This includes saving lives and property from fires and other emergencies, conducting search and rescue operations, providing advice on fire safety, and enforcing fire safety measures in hazardous areas. They also play a crucial role in public awareness campaigns regarding fire prevention and safety.	TBD
2	Fire fighting	Yes
3	Rescue operations	Yes
4	Disaster Management	Yes
5	Fire Safety Advice and Enforcement	Yes
6	Public Awareness	NA
7	Emergency Response	Yes

Assisting Primary Work Areas for the KSFES

 ROAD SAFETY - OUR
NATIONAL SAFETY
AND SOCIAL
RESPONSIBILITY

Sl No	Nature of work	Applicable for NSSR Theme
8	Training	TBD
9	Fire Warden Program	Yes
10	Emergency Medical Services	Yes
11 (IN-WIP-STATUS)	Universal planning for improved FESA (Fire Emergency Services and Safety Actuation)	Yes
12 (IN-WIP-STATUS)	Universal planning for NSSR (National Safety Social Responsibility) Theme incorporation	Yes

ABOUT



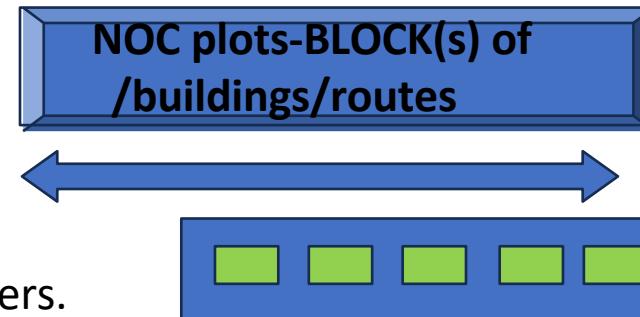
About the KSFES organizational flow

- KSFES Operational flow of command/rescue services
- From the operational point of view, the Bengaluru City has been given under the control of two Chief Fire Officers i.e
- Chief Fire Officer, Bengaluru East and
- Chief Fire Officer, Bengaluru West.
- Bengaluru City is further divided in to 4 Regions with a specially assigned Regional Fire Officer:
 - 1.Bengaluru-East Range
 - 2.Bengaluru-West Range,
 - 3.Bengaluru-North Range and
 - 4.Bengaluru-South Range.
- Under each Regional Fire Officer, 2-3 District Fire Officers function.
- These District Fire Officers are the drawing and disbursing officers of respective districts.

KSFES inspects or assesses buildings & plots and issues then a NOC if their construction and in-situ environment adheres to regulations and defined guidelines

About the KSFES organizational flow

- **KSFES Operational flow of command/rescue services**
- From the operational point of view, the District Fire Officers are also supervisory officers of the fire stations, falling under their jurisdiction.
- Under each District Fire Officer, 3-4 Fire Station Officers are known to be working.
- Fire Station Officers are the unit officers, known to be directly looking after a Fire Station.
- The Fire Station Officers are assisted by Assistant Fire Station Officers.
- Each Fire Station has
 - Leading Firemen,
 - Driver Mechanics,
 - Fireman Drivers and
 - Firemen who are the first responders.

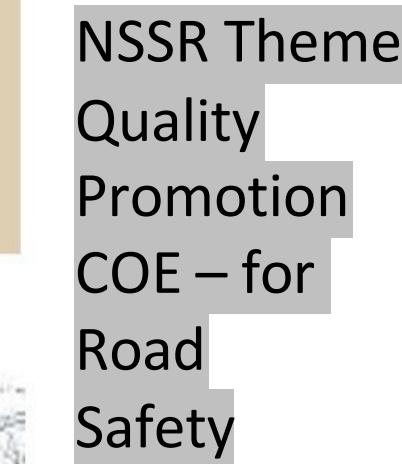
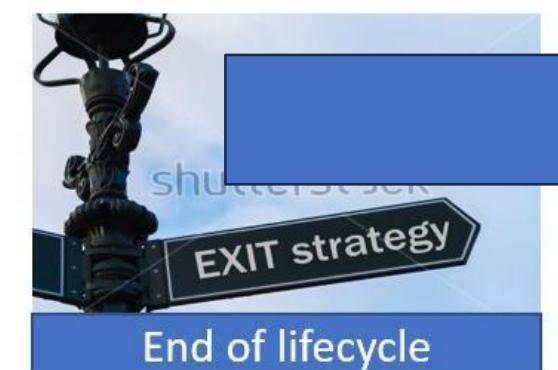
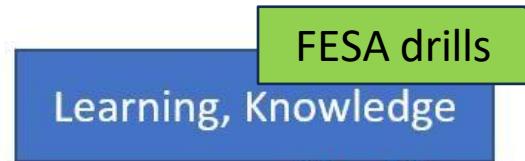


KSFES expects Technical Persons to register and submit details for any NOC of a building or plot

Technical Persons can include

- ☒ Architect
- ☒ Structural Engineer
- ☒ Electrical Engineer
- ☒ PH Engineer
- ☒ Site Supervisor
- ☒ Civil Engineer
- ☒ Contractor

UNIVERSAL PLANNER



RITP/Votary Track for Ambulances

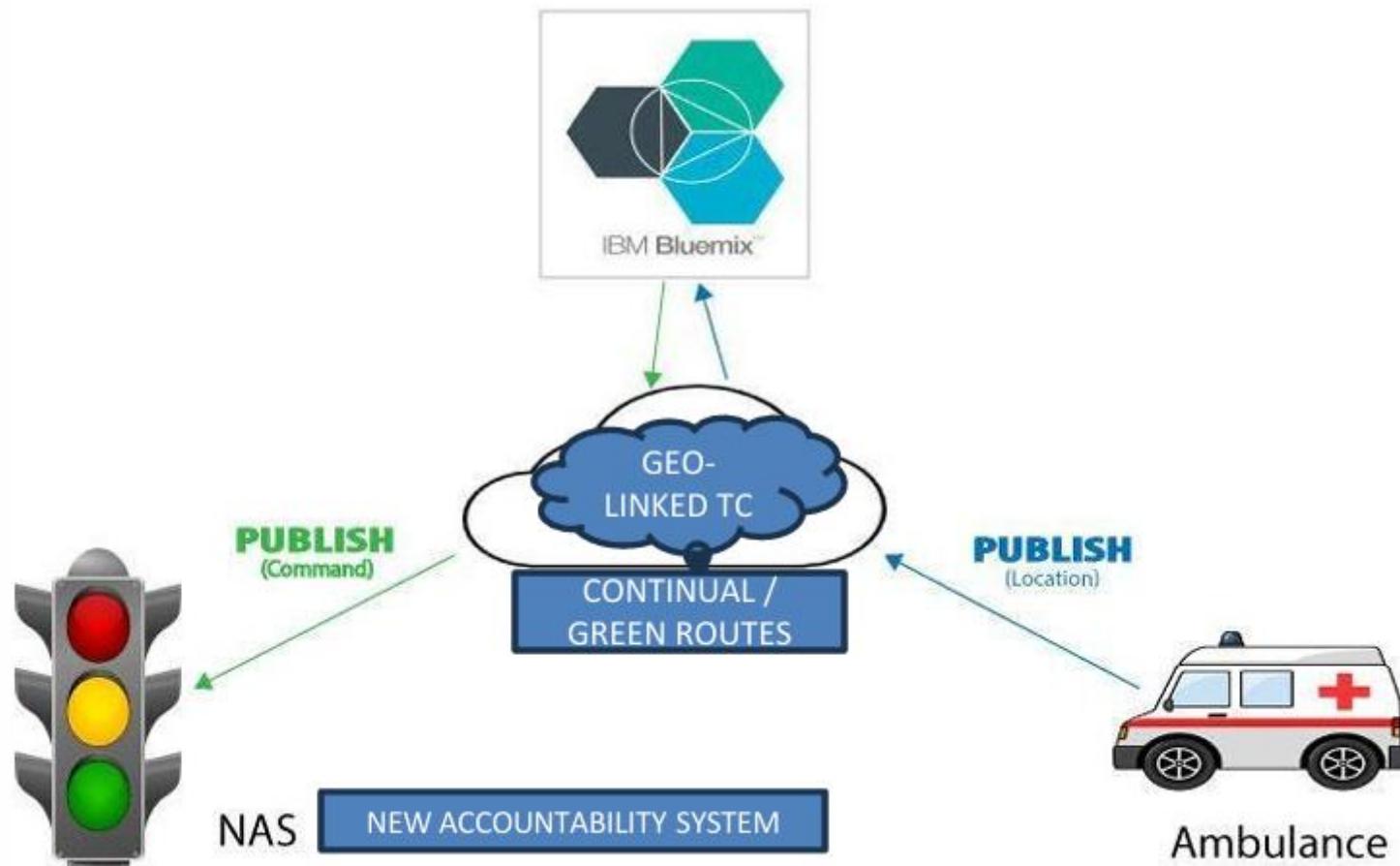


1. Self-preparedness
2. Publishing of RITP/
Votary Track Lifecycle
for trip

COPQ/DRONE VISION
CONTINUUM AND
PMS/PRM levels

**NSSR Road Safety Themes and relevance for safety
on road and supportive traffic control**

Traffic Management Server



ROAD INFRASTRUCTURE TRANSFORMATION PROGRAMME

SMART Ward Management Accountability Level: PMS/PRM/NA

IMPORTANT DETAILS

Vehicle registration number:

Road Safety

Level Card Id:

Date of submission:

Time of submission:

BASIC CHECKLIST FOR SERVICE PRODUCTION AND SERVICE ENABLING

Does the ambulance adhere to statutory requirements? Yes/No/Partially

Does the ambulance driver comply with self-assessment for fitness?

Yes/No/Partially

Does the ambulance driver expect to use drive guidance? Yes/No/Partially

Does the ambulance driver expect to use route editioning? Yes/No/Partially

Is the ambulance in good quality condition? Yes/No/Partially

Is the ambulance appropriately equipped? Yes/No/Partially

Is the ambulance manned by trained personnel? Yes/No/Partially Is

the ambulance checked on a daily basis? Yes/No/Partially

Status for norms specific checklists:

- Recent Air pressure checkup
- Recent Engine oil checkup
- Recent Brake oil checkup
- Recent Coolant level checkup
- Recent Battery acid level checkup
- Recent Solar panel or electric system checkup
- Recent Emission level checkup
- Drive guidance systems checkup

Are the equipment on board checked on a daily basis using a checklist?

Yes/No/Partially

Are emergency medications checked daily and prior to dispatch using a checklist? Yes/No/Partially

Does the ambulance have a proper communication system?

Yes/No/Partially

ONBOARD CARE CHECKLIST FOR SERVICE INTERACTION

Do documented policies and procedures guide the uniform use of cardio-pulmonary resuscitation throughout the organization? Yes/No/Partially

Are staff providing direct patient care trained and periodically updated in cardio-pulmonary resuscitation throughout the organization?
Yes/No/Partially

Are the events during a cardio-pulmonary resuscitation recorded?
Yes/No/Partially

Does a multi-disciplinary committee conduct a post event analysis of all cardio-pulmonary resuscitations? Yes/No/Partially

Are corrective and preventive actions taken on the basis of the analysis of all cardio-pulmonary resuscitations? Yes/No/Partially

Do only qualified personnel order, plan, perform and assist in performing procedures? Yes/No/Partially

Is sufficient care available for patients in a critical condition or in a deteriorating condition - being brought in from other facilities?
Yes/No/Partially

ELIMINATING ERROR CHECKLIST FOR SERVICE ENABLING/INTERACTION

Do documented procedures exist to prevent adverse events like wrong patient, wrong side and wrong procedure? Yes/No/Partially

Is informed consent taken by personnel performing the procedure, where appropriate? Yes/No/Partially

Is there adherence to standard precautions and adherence to asepsis during the conduct of the procedure? Yes/No/Partially

Are patients appropriately monitored during and after the procedure? Yes/No/Partially

Are procedures documented accurately in the patient record? Yes/No/Partially

SMART WARD PORTFOLIO ACCOUNTABILITY

Does the vehicle usage and quality adherence report a conventional Road Safety Level? Yes/No/Partially

Does the vehicle usage and quality adherence report a non-conventional Road Safety Level? Yes/No/Partially

Does the vehicle usage and service lifecycle perform with cost of poor

quality related PMS (Preparedness-Mitigation-Support)? Yes/No/Partially

Does the vehicle usage and service lifecycle perform with cost of poor

quality related PRM (Preparedness-Readiness-Mitigation)? Yes/No/Partially

AS FOCUS FOR SMART WARD PORTFOLIO ACCOUNTABILITY

Does the vehicle usage, service design and quality adherence ensure Quality of information for Emergency response/Accident care/incidences due to lack of Road Safety Levels? Yes/No/Partially

Does the vehicle usage, service design and quality adherence ensure Quality of process for Emergency response/Accident care/incidences due to lack of Road Safety Levels? Yes/No/Partially

Does the vehicle usage, service design and quality adherence ensure Quality of outcome for Emergency response/Accident care/incidences due to lack of Road Safety Levels? Yes/No/Partially

Does the vehicle usage, service design and quality adherence ensure Quality of service for Emergency response/Accident care/incidences due to lack of Road Safety Levels? Yes/No/Partially

Does the vehicle usage, service design and Quality of service need Quality promotion in SMART / WIP Ward management? Yes/No/Partially

Does the vehicle usage, service design and Quality of service need Continual Quality Improvement in SMART / WIP Ward management? Yes/No/Partially

Does the vehicle usage, service design and Quality of service need reports on any SMART / WIP Ward management patterns or status assessments? Yes/No/Partially

Does the vehicle usage, service design and Quality of service need reports on any Fire and Emergency Service Actuation patterns or status assessments? Yes/No/Partially

Does the vehicle usage, service design and Quality of service need reports on any NSSR Road Safety patterns or status assessments? Yes/No/Partially

RITP/ Votary Track for Special Need Vehicles

Special Need Vehicles could include “Fire Engines, Emergency Response Vehicles, Disaster Management Vehicles, Hazardous Waste Vehicles, Hazardous Goods and Materials Vehicles, Government Officials Convoy(s)”



- 1. Self-preparedness
- 2. Publishing of R I T P / Votary Track Lifecycle for trip

COPQ/DRONE VISION
CONTINUUM AND
PMS/PRM levels



ROAD INFRASTRUCTURE TRANSFORMATION PROGRAMME

SMART Ward Management Accountability Level: PMS/PRM/NA

IMPORTANT DETAILS

Vehicle registration number:

Road Safety

Level Card Id:

Date of submission:

Time of submission:

BASIC CHECKLIST FOR SERVICE PRODUCTION AND SERVICE ENABLING

Does the vehicle adhere to statutory requirements? Yes/No/Partially

Does the driver comply with self-assessment for fitness? Yes/No/Partially

Does the driver expect to use drive guidance? Yes/No/Partially

Does the driver expect to use route editioning? Yes/No/Partially

Is the vehicle appropriately equipped? Yes/No/Partially

Is the vehicle manned by trained personnel? Yes/No/Partially

Is the vehicle checked before any journey? Yes/No/Partially

Are the emergency response systems (Fire extinguishers, Sand buckets, Pollution Control Board or City Municipal recommended equipment, First-aid boxes) on board checked on a daily basis using a checklist? Yes/No/Partially

Are the communication systems (mobiles, wireless sets, location trackers, and Ambulance & Emergency Response contact lists) on board checked prior to dispatch using a checklist? Yes/No/Partially

Status for norms specific checklists:

- [] Recent Air pressure checkup
- [] Recent Engine oil checkup
- [] Recent Brake oil checkup
- [] Recent Coolant level checkup
- [] Recent Battery acid level checkup
- [] Recent Solar panel or electric system checkup
- [] Recent Emission level checkup
- [] Drive guidance systems checkup

ELIMINATING ERROR CHECKLIST FOR SERVICE ENABLING AND SERVICE INTERACTION

Are corrective and preventive guidelines and action plans checked prior to dispatch? Yes/No/Partially

Are post-incidence conduct guidelines and action plans checked prior to dispatch? Yes/No/Partially

Are reports and mandatory records submitted after each journey to help prevent adverse events in the future? Yes/No/Partially

SMART WARD PORTFOLIO ACCOUNTABILITY

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RITP/Votary Track for Air Ambulances



1. Self-preparedness
2. Publishing of RITP/
Votary Track Lifecycle
for trip

COPQ/DRONE VISION
CONTINUUM AND
PMS/PRM levels

Reference: An Emergency Medical Services & Disaster Management publication by key authors from AIMS, AFMC, Directorate General Assam Rifles

Background

What is an air ambulance?

It is usually a helicopter or a small air plane. We can contemplate the use of a drone but will take this up in our Drone Vision programme for 2026.

The advantage of using a helicopter is that a runway is not required, which is most important for location or incidence specific scene calls, inter-facility transfer, and even search & rescue operations on roads and associated road systems.

The problem with helicopters is that they have the following limitations:

1. Altitude is limited
2. Restrictions on night flying
3. Load capacity is limited
4. Interior space is limited
5. Flying time (as per 2008 records) is about 2-3 hours without refueling

Why needed?

Tomorrow air ambulances will help us save life or provide timely assistance to people via an emergency response network that designs and incorporates response for scene calls, air lifts of people or loads, helps transfer patients from remote locations and in cases where hospitals have inadequate medical facilities for ventilator support, urgent angioplasty bypass, or even ICU/CICU facilities.

Some scenarios exist where air ambulances are being made available or have been used in India, but the coordination with an emergency response network is not available.

Problems affecting air ambulances

The problem is that in India, air ambulances are not common so there no dedicated aircrafts available in all cities or locations.

Rapid approval when relevant for air ambulances is not easily possible. There is no proper communication protocol between authorities for the same.

Added to this there are no air ambulance (helicopter/UAV) span markers planned on PMS/PRM ACCENTUATED road systems to help pilots land/take off/ air lift on a need basis.

Added to this there are no cable span markers planned on road systems to warn helicopter pilots of the presence of electric/telephone/cable television wires/router connectivity wires in an area needing air lifts.

ROAD INFRASTRUCTURE TRANSFORMATION PROGRAMME

SMART Ward Management Accountability Level: PMS/PRM/NA

IMPORTANT DETAILS

Aircraft registration number:

Road Safety

Level Card Id:

Date of submission:

Time of submission:

BASIC CHECKLIST FOR SERVICE PRODUCTION / SERVICE ENABLING

Does the air ambulance adhere to statutory requirements? Yes/No/Partially

Does the pilot have adequate experience and yearly certifications?

Yes/No/Partially

Does the pilot and co-pilot (if relevant) know about the regulations imposed by civil aviation and associated publicsafety authorities?

Yes/No/Partially

Does the pilot expect to use flight or location guidance? Yes/No/Partially

Does the aircraft used as an ambulance have proper communication systems? Yes/No/Partially

Is there appropriate communication equipment both internal (for air medical teams) and between the air crew/clinical aiding crew/assisting agencies like the emergency response network, public safety agency or ground emergency healthcare service providers? Yes/No/Partially

Is the aircraft in good quality condition? Yes/No/Partially

Is the air ambulance appropriately equipped for different emergency services? Yes/No/Partially

Is the air ambulance manned by trained air medical teams / clinical crew/ aircraft maintenance personnel? Yes/No/Partially

Are all the equipment on board checked before any flight or transfer using a checklist? Yes/No/Partially

Are emergency care medications checked systematically and prior to flight using a checklist? Yes/No/Partially

Is the air ambulance checked for an all clear prior to any emergency response or transfer? Yes/No/Partially

Does the aircraft undergo frequent inspection and maintenance by the civil aviation authorities or departments? Yes/No/Partially

Is the aircraft equipped with survival gear, sophisticated navigation equipment and weather monitoring aids? Yes/No/Partially

Does the aircraft have any pressurizing capability (if relevant)?
Yes/No/Partially

Are all fragile equipment secured from free movement during flight, as they are known to lead to erroneous or erratic readings? Yes/No/Partially

Does the aircraft have restraint straps so that the patient does not fall off from the stretcher or level of care arrangement during transport, turbulent weather and/or treatment? Yes/No/Partially

Does the configuration of the aircraft permit healthcare providers or air medical teams to perform emergency procedures if necessary?

Yes/No/Partially

Does the aircraft have an entry that permits easy loading or unloading without excessive manoeuvring of the patient? Yes/No/Partially

Does any manoeuvring not impact the functioning of monitoring systems, IV lines, ventilator systems? Yes/No/Partially

Does the aircraft have internal temperature control to prevent extremes from affecting the patient? Yes/No/Partially

Is the cockpit shielded from intrusive light, sound or movement during flight operations? Yes/No/Partially

Are electric power-outlets available with inverters or appropriate power source outputs, so as to ensure problem free operating of any medical equipment? Yes/No/Partially

Are all equipments, stretchers, seating facilities arranged for rapid air travel or passage? Yes/No/Partially

Are all equipments secured on racks, compartments or by strap restraints? Yes/No/Partially

Norms specific checklists for Service Interactions:

- [] Are there approved policies to train and educate air medical crew to ensure safe conduct in and around the aircraft
- [] Are Crew given full briefing about general aircraft safety
- [] Are Crew given full training with a structured flight program that covers altitude physiology and procedures for patient safety
- [] Is there satisfactory training given to air medical crew to use medical supplies and equipment during in-flight healthcare, medical assistance or transport
- [] Are approved policies applied for infection control with procedures for safe disposal of sharps, biological waste and contaminated materials
- [] Is there satisfactory patient record management and continuity of care
- [] Is proper training given to air medical crew for management of critically ill or injured patients at different altitudes
- [] Are emergency response network related flight or location guidance systems periodically tested and approved after structured checkups

ONBOARD CARE CHECKLIST

Do documented policies and procedures guide the uniform use of cardio-pulmonary resuscitation? Yes/No/Partially

Are air medical crew providing direct patient care trained and periodically updated in cardio-pulmonary resuscitation? Yes/No/Partially

Are the events during a cardio-pulmonary resuscitation recorded?
Yes/No/Partially

Does a multi-disciplinary committee conduct a post event analysis of all cardio-pulmonary resuscitations? Yes/No/Partially

Are corrective and preventive actions taken on the basis of the analysis of all cardio-pulmonary resuscitations? Yes/No/Partially

Do only qualified personnel order, plan, perform and assist in performing procedures? Yes/No/Partially

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ELIMINATING ERROR CHECKLIST FOR SERVICE INTERACTIONS

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