

# State Emergency Rescue Helicopter Service (RAC Rescue) Facts Sheet 2019



## CAPABILITY

### Aircraft Information

Operator:	Lloyd Helicopters trading as CHC Helicopters (Australia)	Jandakot	Bunbury	Back-Up
Type:	Bell 412EP Twin Huey	<b>RESCUE SIX-FIVE-ONE</b>	<b>RESCUE SIX-FIVE-TWO</b>	<b>RESCUE SIX-FIVE-THREE</b>
Engines:	2 x Pratt & Whitney PT6T-3DF turbine engines			
		VH-EWA	VH-EPK	VH-VAA

### Performance

Cruise Speed	120knots~230km/hr~3.75km/minute
Operational Radius (flight to incident, one tank of fuel, weather-dependent)	Approx. 240 km (out & back)
Deployment Range (without refuelling)	Maximum - 530 km



### Crew & Patients

Standard Crew:	CHC Pilot, CHC Air Crewman, St John Ambulance Critical Care Paramedic / Rescue Crewman (CCP)
Critical Care Paramedical Capability:	Aeromedical critical care; Provide emergency land/sea search and rescue; Conduct helicopter winch operations and retrievals; Adult and paediatric anaesthetics, advance life support, and resuscitation; Administer blood and S8 medication; Graduate Diploma in Paramedical Science.
Optional Crew:	Royal Flying Doctor Service Clinician, Department of Health Specialist/s, other supplementary crew.
Patients:	Maximum 2 unless SAR mercy mission

### Equipment

- Single Pilot – Instrument Flight Rules + Night Vision Goggles
- Image-Intensifying Night Vision Imaging System (NVIS)
- Forward Looking InfraRed (FLIR) Systems StarSafire 380Hdc
- Thermal Imaging Sensor
- HD TV & video management systems
- Churchill ARS (“augmented reality”) mapping system
- Multi-agency radio
- Two-person (272kg) rescue winch
- Critical care medical equipment
- St John Ambulance AmbiCAD
- CCTV camera system
- Air-deployable 6-10-man life rafts with associate survival equipment
- Air deployable Self-Locating Datum Marker Buoy
- Hand-held grapple hook and ring
- Aviation EPIRB direction finder
- Strobes, flares & sea dye marker

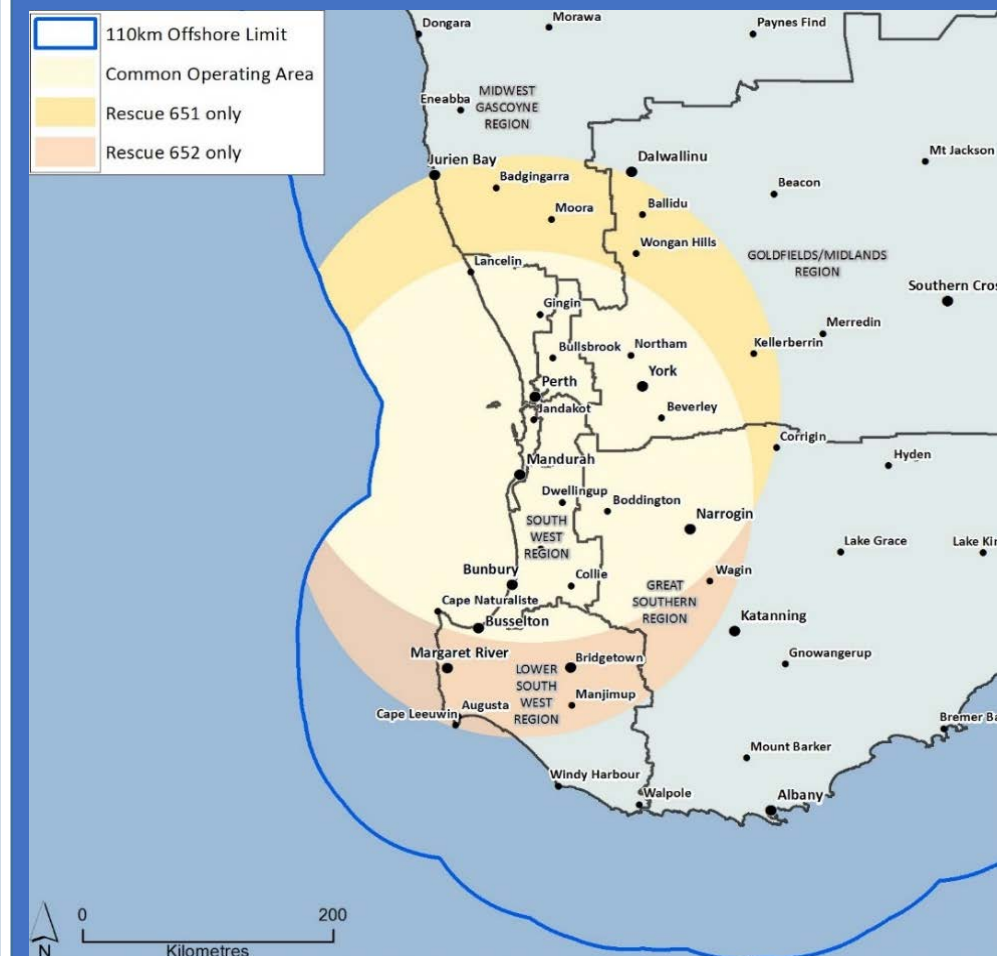
## READINESS

Type of Mission	Readiness (minutes from task order)	Helicopter Planning Ranges
Primary Care Retrievals	15 minutes	400 km total distance from base to incident then to definitive care destination hospital.
SAR	15 minutes	Land SAR: Variable ranges Sea Rescue: Up to 110 km off shore.
Secondary Care Aeromedical IHPT	60 minutes	Variable ranges, depending on time-criticality

### TYPICAL MISSION SCENARIO AREA OF COVERAGE Rescue or Retrieve; Return to Metropolitan Definitive Care (No Refuel)

#### Purpose

- Nominal operating range of each ERHS aircraft 365 days a year; 24x7 – returning patients to Perth metro trauma centre hospitals.
- Shapes represent aircraft flying range to depart base and return patient to Perth (RPH, FSH, or QE2/PCH) then back to Jandakot base on one tank of fuel (full). Max total distance 400km. Note, this 400km total is slightly short of the Bell412EP capability. The pilot retains a 30 minute fuel reserve to allow for variables such as weather, time spent searching, hovering, etc.



#### Assumptions

- ERHS operates with Bell 412EP aircraft
- Depart from Jandakot or Bunbury Base
- Max distances (onshore and offshore)
- Maximum round trip from base = 400km
- Max offshore = 110km

## BACKGROUND

Western Australia’s only 24 hour, 7 days a week emergency rescue helicopter service, consisting of appropriately crewed and equipped helicopters to allow specialist Critical Care Paramedical services, to be rapidly deployed to incidents or otherwise inaccessible patients. Helicopters accelerate delivery of patients directly to definitive care (most appropriate hospital for the patient’s condition) which achieves higher patient survivability rates, reduced hospitalisation/rehabilitation times, and better patient and community outcomes.

## HISTORY

Western Australia’s Emergency Rescue Helicopter Service (ERHS) commenced operations from Jandakot Airport (RESCUE 651) in August 2003 known in the public domain as RAC RESCUE. On 1 February 2016, the second base opened at Bunbury Airport (RESCUE 652), expanding the area of coverage to include all of the South West and part of the Great Southern. Aircraft, crew, equipment and operating procedures are identical and interchangeable. The helicopters operate as a network, providing redundancy for each other.

**MISSION TYPES** The ERHS conducts four types of missions:

1. Primary Care Retrievals;
2. Search & Rescue (SAR);
3. Secondary Care Inter-Hospital Patient Transport;
4. Other approved tasks.

**Advanced paramedical intervention to incidents / Primary Care Retrievals** are a response to ambulance Priority 1 incidents and patients that require Critical Care Paramedic capabilities on scene, or when aeromedical evacuation is required from otherwise remote or inaccessible locations – These tasks have priority over the other ERHS operations and are conducted in accordance with the Department of Health Ambulance Distribution Model (Health Operational Directive OD0608/15 of 23 February 2015).

**Search & Rescue (SAR)** is conducted on behalf of other Hazard Management Agencies such as the Australian Maritime Safety Authority in Canberra or the Western Australian Police. It includes, sea and land searches for missing persons and if necessary vertical retrieval plus advanced medical treatment – SAR is conducted in accordance with agreements between DFES and the other agencies, and is the most heavily used rotary wing SAR asset in the State.

**Secondary Care Inter-Hospital Patient Transport (IHPT)** are time-critical adult and child patient transfers from regional medical facilities to tertiary hospitals with specialist medical capabilities on behalf of the Department of Health and the Royal Flying Doctor Service (RFDS). IHPT are conducted in accordance with the Department of Health Contract with RFDS for provision of aeromedical IHPT services and Department of Health Information Circular IC0014/07 of 7 June 2007. Separate policies and procedures cover Neo-Natal IHPT.

**Other approved tasks** include training for the above operations and those tasks necessary to enable the delivery of the Contracts between DFES and the ERHS Service Providers: CHC Helicopters Australia and St John Ambulance.

**Note:** Per current contract parameters, ERHS does not conduct firebombing or intelligence surveillance/reconnaissance tasks (eg. Law enforcement, searches for deceased persons, shark patrol, marine oil pollution, fire detection or mapping).

