

REVVING UP READINESS

Introduction

The National Critical Care and Trauma Response Centre (NCCTRC), based in Darwin, Northern Territory (NT), Australia, serves as the operational and administrative headquarters of the Australian Medical Assistance Team (AUSMAT). AUSMAT is an official Australian Government multidisciplinary emergency healthcare team. In 2016, AUSMAT was verified by the World Health Organization (WHO) as an Emergency Medical Team (EMT) Type 2, and re-verified in 2023. AUSMAT have a roster of almost 600 nationwide active members and has the capability to rapidly respond to sudden-onset disasters and other health emergencies on behalf of the Australian Government, both nationally and internationally.

The NT has a relatively small population of 233,000 (Australian Bureau of Statistics, 2022), in comparison to the geographical land size of the territory 1.3M km². The region is served by a single major Tertiary referral centre; the Royal Darwin Hospital with 360 inpatient beds.

The NCCTRC collaborates with Northern Territory Major Events Company (NTMEC), St John Ambulance NT, Northern Territory Police Fire and Emergency Services (NTPFES) and Northern Territory Department of Health (NT Health) in delivering specialist medical and critical care services at large scale events.

This intra-agency collaboration involves multi-disciplinary integration across pre-hospital, retrieval and hospital services to address the heightened risks associated with high-velocity motor sports and large public gatherings, which have the potential to result in severe illnesses, injuries or fatalities. Preparing for these events requires rigorous planning to ensure the readiness and capacity to respond to critical care needs and possible mass casualty scenarios.

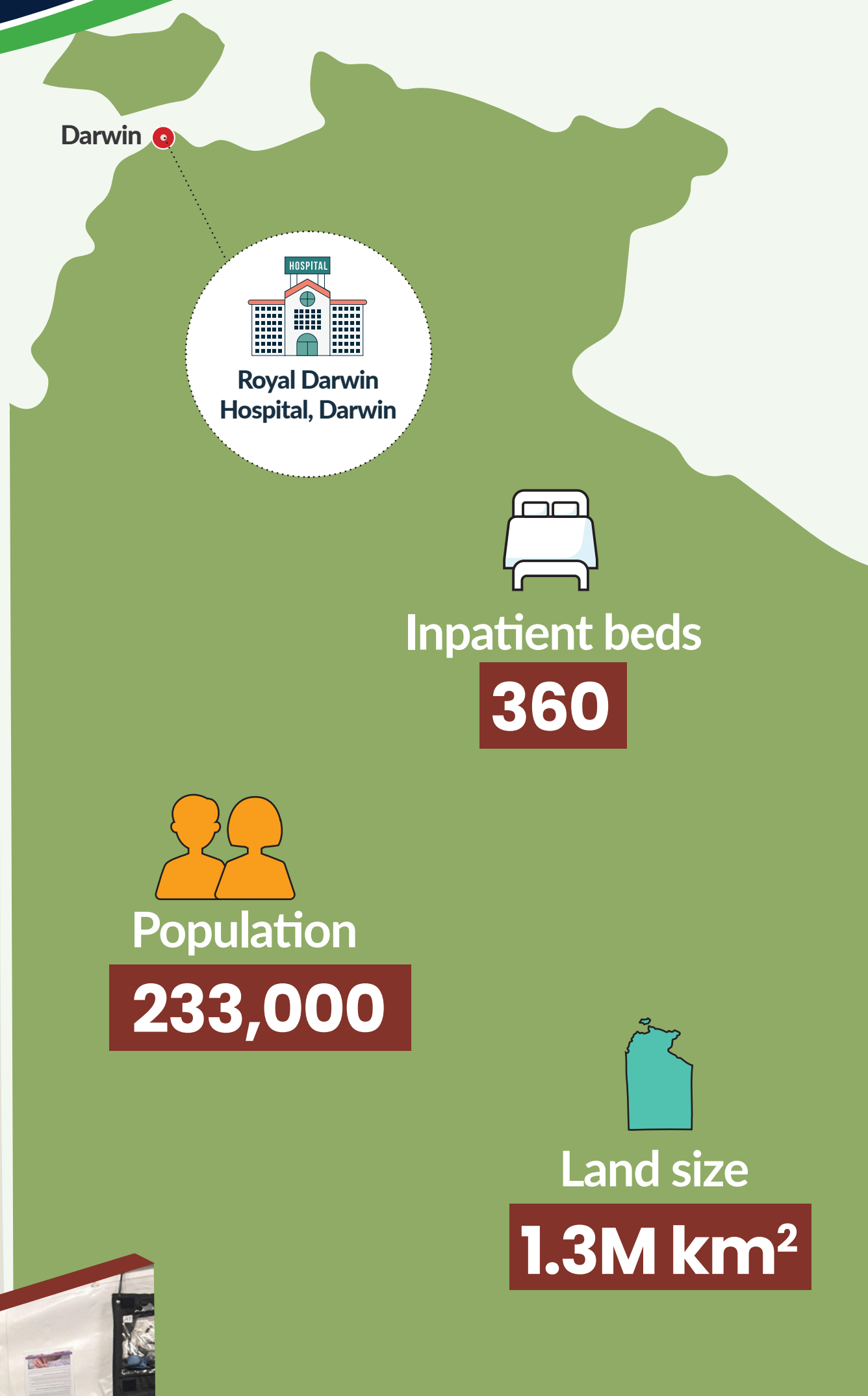
EVENTS



**BASSINTHEGRASS
music festival**
(an all-ages licensed one-day
event that attracts more than
16,000 music fans)



**BetR
Darwin Triple Crown**
(an all-ages licensed three-
day high-speed car racing
event that attracts almost
40,000 spectators)



Selection Criteria for Event Medical Team

Essential

- | | | | |
|--|--|---|--|
| 01
Medical staff with anaesthetics/emergency department or intensive care experience | 02
Registered nurses with emergency department/intensive care experience | 03
Registered with Australian Health Practitioner Regulation Agency (AHPRA) | 04
AUSMAT Health Logisticians (fire and emergency services speciality) |
|--|--|---|--|

Desirable

- | | | | |
|--|--|--|---|
| 01
Registered on AUSMAT database | 02
Major Incident Medical Management and Support (MIMMS) course completion | 03
Pre-hospital critical care retrieval experience | 04
Remote Pre-Hospital Trauma and Disaster course (RPHDTC) completion |
|--|--|--|---|

Objectives

This presentation outlines the methodologies employed in preparing and delivering specialist medical support for the major events in Darwin each year. Exploring how these events contribute to the operational readiness of AUSMAT members.

Methods

Expression of Interest (EOI) process

- » An EOI is initially sent out through the generic AUSMAT mailbox for all annual events in March each year.
- » The EOI is sent to all NT based AUSMAT members, and if needed, complimented by non AUSMAT Darwin-based NT Health professionals through distribution of the EOI into specialist clinical areas.

Event preparedness

NCCTRC Strategic Events and Clinical Workforce Team

01 Audit of special events clinical consumable cache and inventory



02 Procurement of required medical consumables



03 Preparation and packing of medical consumables, biomedical equipment and logistics equipment



04 Event bump-in - Day prior to event

- » NTMEC Workplace Health and Safety Induction for all event staff
- » Fit-out of medical facility with all required logistics, medical equipment and consumables by NCCTRC staff

05 Just in time and scenario-based training for staff on medical equipment, medical consumables and pharmacy/ laboratory equipment deployed to event



Discussion

Major events in the NT, which attract both interstate and international visitors, lead to significant population surges in Darwin. This influx places substantial strain on both pre-hospital and in-hospital healthcare systems, affecting healthcare delivery, resource allocation, and response capabilities before, during, and after the events.

The NCCTRC collaborates with St John Ambulance and NTMEC to deliver onsite event medical and critical care capabilities. This partnership ensures comprehensive patient care, treatment and stabilisation, prior to hospital transfer, optimising the medical response to increased demand for healthcare services during these high-risk events. This ongoing relationship further strengthens the NT's interagency preparation and planning for major disaster response.

Participation in the NCCTRC Event Medical Teams, is an opportunity for Darwin-based NT health professionals and AUSMAT members nationally who have completed the requisite training to utilise and maintain familiarity with the deployable medical equipment, consumable cache, operational policies and current clinical guidelines. These events are managed and coordinated by the NCCTRC Strategic Events and Clinical Workforce Team.

The structured approach to pre-hospital medical response and the integration of real-time medical interventions contribute to a robust system of care that is essential for AUSMAT's rapid deployment during sudden onset disasters and complex health emergencies.

The mixture of non-AUSMAT-trained NT Health professionals with AUSMAT-trained members provides an opportunity for staff interested in becoming an AUSMAT members to work within a pre-hospital environment similar to an AUSMAT deployment. This arrangement also supports recruitment efforts to expand AUSMAT capabilities.

Additionally, multi-disciplinary preparation and engagement enhance the operational readiness and efficiency of AUSMAT members and deployment cache capability, ensuring teams and equipment remain equipped, prepared and ready for future events.

Conclusion

The intra-agency collaboration in supporting major events such as BITG and BetR Darwin Triple Crown demonstrates the critical role of strategic preparedness in mitigating the risks associated with high-impact, high-velocity environments.

The integration of AUSMAT members and local NT Health professionals through multidisciplinary teams ensures the effective management of both pre-hospital and in-hospital care during mass gatherings. These events serve as vital platforms for operational readiness, providing opportunities for skills enhancement, equipment familiarisation, and scenario-based training, ensuring AUSMAT members are equipped, prepared and ready for deployments to sudden-onset disasters and complex health emergencies both domestically and internationally.

Multi-agency readiness session

This intra-agency collaboration integrates pre-hospital, retrieval, and hospital services to address the heightened risks associated with high-velocity motor-sports and large public gatherings.



Results

BASSINTHEGRASS

Established in the Northern Territory in 2003, BASSINTHEGRASS is the Territory's largest music festival.

The NCCTRC staff work in collaboration with St John Ambulance NT who are the lead agency for the event in the health planning and response. NCCTRC sit within the command-and-control structure and work to the St John Ambulance NT event medical plan.

- ✓ The medical facility is set up in a temporary onsite shelter, co-located adjacent to St John Ambulance
- ✓ The medical facility includes two resuscitation bays with an onsite pharmaceutical cache, patient monitoring, defibrillation, video laryngoscopy, respiratory support, ultrasound diagnostics and laboratory point-of-care testing
- ✓ The team members comprise of medical and nursing leads, emergency and intensive care physicians with retrieval experience, anaesthetists, critical care nurses, and health logistics support
- ✓ A total of 516 patients required treatment between 2021-2023, with 10 requiring transfers to hospital (St John Ambulance, 2024)
- ✓ Presenting complaints included headaches, soft tissue injuries, wounds, asthma, allergies, alcohol intoxication and dehydration.

BetR Darwin Triple Crown

- ✓ The medical service includes a combination of a fixed-building medical centre at the start of the race track, roving pit lane medics and on-track race response team members in race cars, trackside during the event
- ✓ Health Centre medical care includes one resuscitation room, and three minor patient assessment rooms with onsite pharmaceutical cache, patient monitoring, defibrillation, video laryngoscopy, respiratory support, ultrasound diagnostics and laboratory point-of-care testing
- ✓ Medical service delivery exceeds minimum standards outlined in the Repco Supercars Medical Guidelines (2022), Motorsport Australia Medical Services at Motorsport Events (2020) and Appendix H-Supplement 6 of the Federation Internationale de l'Automobile International Sporting Code
- ✓ Mass casualty triage, treatment and evacuation support, including capacity for eight stretcher beds and six seated patients, delivered via a temporarily reconfigured special needs passenger bus
- ✓ A specialist decontamination shower and equipment is provided and facilitated by NCCTRC Specialist Logistics staff with Fire and Emergency Services training.

References

- » Australian Bureau of Statistics. (2022). Snapshot of the Northern Territory. <https://www.abs.gov.au/articles/snapshot-nt-2021>
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- » Northern Territory Major Events Company. (2024). Thousands attend Darwin Triple Crown. <https://darwinsupercars.com.au/mediacentre/thousands-attend-darwin-triple-crown>
- » St John Ambulance. (2024). BASSINTHEGRASS 18 May 2024 St John NT event medical plan. St John Ambulance Australia (NT) Inc.



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