

NZ EXECUTIVE FIRE OFFICERS SOCIETY

26th February 2015

Discussion document on User Requirements for Executive Officers Vehicles.

Background:

- Individual Executive Officers (EO) have different expectations regarding the User Requirement for EO's vehicles.
- There is a difference in expectations between the Executive Fire Officers Society (EFOS) and NZFS senior management in relation to the User Requirement for EO's vehicles.
- EFOS and NZFS senior management have differing expectations on related topics e.g. All wheel drive vehicle versus non all wheel drive vehicle options for EOs.
- The Assistant Area Commander (AAC) group are required to undertake driving duties (in all weather conditions) as part of their role for management, command and control, and limited private.
- Currently the only option for the AAC group is a non all wheel drive vehicle, with limited private use
- The Area Commander (AC) Group are required to undertake the same driving duties as the AAC group.
- The AC Group have the option of non or all wheel drive vehicles, with full or limited private use.

Discussions with the Fire Service National Fleet manager (Mike Moran) have highlighted his own frustration in determining what the User Requirement should look like. Following these discussions the group agreed that it appears that the diversity of expectation falls into three points:

- A. What type of vehicle is most appropriate? (Size, capability and 'Presence on the Road' etc)
- B. What equipment is required to be carried in the vehicle? This of course does influence the type (or at least size) of the vehicle.
- C. Types of warning devices available (Flashing lights, Siren (capacity) and auxiliary warning devices (Horn etc)

Point A

An EO requires a vehicle that allows them to appropriately fulfil the requirements of their rank and role, and meet their 'Private Use' requirement. Therefore:

- It must be remembered that by being available there is a necessity to be immediately available when on call, at all times. This requires the EO to have the vehicle with them when on call and whenever that person is available. It is not appropriate to "go home" and get the work car before responding. Regardless if this is an advantage in vehicle ownership to the individual, there is also an impost of their freedom. When EOs are not on call, history shows us that organisational

expectations are that those off call officers will answer the call for extra command and control assistance. While this is the norm for some Metro Brigades who work a one week on in four or greater down time roster, in most provincial areas officers work a one week on every two weeks and down time means they are not always available for turnout. Some areas have only the one appointed officer as the AC and hence are expected to be on call 24/7 365 days a year.

Point B

- The vehicle must be able to fulfil the requirements of rank and role, including private usage and therefore appropriately transport the equipment to be "Ready to Command" all of the time. This does limit the 'private use' capability.

Point C

- The vehicle must meet Safety Issues requirements, including warning devices and vehicle safety ratings (AMCAP etc).

Vehicle Types:

For several years the EFOS and the NZFS have worked together to determine the vehicle options in the "limited private use" category. The current round determined the Ford Mondeo wagon and the Toyota Camry sedan as the two options. The NZFS has agreed to offer either a Wagon or a Sedan as options in deference to the "Limited Private Usage" component.

The EFOS team review of 'User Requirement' vehicles recommends that the requirements should cover aspects such as:

- the typical size and number of passengers that is expected to be carried.
- the equipment that is required to be 'Ready to Command'. Should GPS, hands free car kits and map reading lights form part of the User Requirement?
- Seat to headlining height, leg room, body width, seating positions and door access.

The seating and size aspects did disqualify some of the smaller vehicles considered. In contrast some vehicles considered were possibly larger than necessary and therefore more expensive.

Consideration must also be given to driver visibility and 'Presence' on the road. EO vehicles are operated over and above normal road speeds and in abnormal conditions e.g. high winds, flooding events, civil defence emergencies, fire related emergencies etc., and rely on other road users being aware of their presence.

The vehicles previously chosen did not always meet the User Requirement of the EOS team tasked to look at these vehicles; however the User Requirement was never a definitive or formal specification and didn't necessarily meet the expectations or local geographical and or prevailing weather conditions needs of some members or the Fire Service. Some of these criteria need debate and agreement, such as the number of passengers and the typical size of these. EFOS members do have differing Private Use needs which will drive their view on the User Requirement.

If we look at The Order of Saint John (OSJ) fleet allocation for operational officers (our AC/AAC equivalent) the following criteria is applied when scoping for EO fleet requirements:

The role of the officer is role mapped resulting in the identification of a range of suitable vehicles that will allow the officer to carry out their function and role. The final selection of vehicles must also fit within set financial criteria.

At present all Executive Officers of OSJ are issued with a range of all wheel drive vehicles. This enables officers to respond and carry out their management and response functions in different weather conditions (ice, snow, high wind, rain etc.).

Vehicle Capabilities and Driving Conditions:

The current different vehicle options between the AC & AAC groups restricts the turnout capability within the same fire areas/commands. When the AAC is on call, and is faced with adverse weather and traffic conditions, he/she may not be able to respond in their vehicle due to these conditions. Whereas the AC, with his/her all wheel drive vehicle, could possibly respond in the same weather conditions.

EOs drive a high number of kilometres on a variety of road surfaces (sealed and non sealed), regularly coming across motor vehicle accidents in remote parts of the country. This scenario raises the question “what is the expectation from the public when this occurs and we are the only emergency service in attendance etc.?”

Some NZFS Areas (in particular the South Island) experience weather conditions that would allow better access if an all wheel drive vehicle was available in the limited user criteria. Some debate needs to take place on:

- if the outcome was to determine that an all wheel drive vehicle was appropriate, then the option of a non-all wheel drive vehicle Sedan or Wagon should not be available
- should Region or NHQ be responsible to decide if area/s need all wheel drive capability?
- should there be a financial impost on those that receive an all wheel drive vehicle and conversely, could a member who currently doesn't have the option of full use have this option available to them. Currently there are all wheel drive options available now are cheaper than the current Mondeo and Camry options.

Equipment appropriate to be 'Ready to Command'.

Discussion is required on what actually is the 'Equipment needed to be able to Command'. Similarly, what other requirements, such as First Aid kits and Fire Extinguishers, should be considered as 'Standard Stowage'. Once the 'Standard Stowage' is determined, this should become the mandatory requirement and not a list that is a choice.

How this equipment is stowed is also a consideration. Sister agencies from within the AFAC group have already researched and produced documentation on their specific agency requirements for standard stowage. It would make sense for NZFS to consider this work as part of establishing standard stowage for the white fleet.

The current 2020 Vision strategy of the NZFS states that the NZFS will be *“Leading integrated fire and emergency services for a safer New Zealand”*.

The 2020 vision also talks about *"the reduction of injury and serious harm to our people"* and *"the delivery of high standards of service using the same risk based approach and processes throughout the country"*

Inline with the 2020 Vision, we now have a great opportunity to look into the future for EO vehicle requirements. For example within the next five years will we need rural and medical support response capability?

Conclusion:

Suggest a further workshop with EFOS and the NZFS regarding:

- the suitability of vehicle to the EO role and location
- review what EO User Requirements covers
- review Private Use criteria

Appendix:

Operational Requirements for NZFS Commanders Vehicles

This document provides an outline of the operational requirements for NZFS Commanders Vehicles.

It is intended to provide guidance in determining a specification for future vehicle procurement.

The requirements have been categorised with regard to function, response capability, load capacity, performance, safety rating requirement, emergency response warning system, command and other requirements.

Function and Response Capability

General business use
Incident response in urban and rural areas
Command and Control / ICP and/or Sector function
Task Force mobilisation response
Driving on sealed and unsealed roadways and limited off road use
Negotiation of terrain in geographical response areas with regard to road conditions and prevailing seasonal climatic conditions.
Minimum requirements to be considered include;
AWD capability¹
Minimum ground clearance height²

Load Capacity & Performance

The vehicle load capacity should exceed the minimum requirements for the following;
Transportation of 4 passengers with limited luggage, plus driver
Personal PPE stowage and transportation*
Command function equipment stowage and transportation*
Minimum tow rating of 750kg (2000kg with brakes)
Engine power³ (kW) and torque (Nm) specifications must provide sufficient performance under fully laden conditions.
Vehicle electrics and battery must be of sufficient capacity to enable the operation of the command function facilities for extended periods.

***Standard stowage model to be developed to determine minimum stowage weight and cubic capacity.*

Safety Rating Requirements

5 Star ANCAP Safety Rating.⁴

Emergency Response Warning System

Vehicle to be fitted with an emergency response warning system that provides agreeable audible and visual warning. It is expected that the visual warning system will be visible to other road users. from the front, rear and both sides of the vehicle.

A specification for the warning system should be developed in consultation with industry specialists.

Command and Other Requirements

In addition to the emergency response warning system a number of accessories are required to assist with both command and response functions as well as driver safety.

The accessories required include;

Power inverter for laptop

Work-light in rear for command work station

Land Mobile Radio

LMR capability at command work station

IGC radio charging

GPS

Dash cam

Daytime running lights

Towbar

¹2WD is adequate for rain and very light snow conditions, and capability is improved with traction control.

AWD provides an additional margin of safety and capability in adverse conditions and for travelling on unsealed roads.

²A vehicle that is expected to be capable of operating during adverse weather events should have a minimum ground clearance that will allow for the safe negotiation of minor debris and/or road damage.

³Engine power determines how fast a vehicle can travel, torque at the wheels determines how quickly that speed can be reached. The greater the torque figure, the faster the acceleration.

⁴To achieve a 5 star ANCAP safety rating from 2013, cars must be equipped with Electronic Stability Control, 3-point seat belts for all forward facing seats, head-protecting

technology (side airbags) for front seats, seat belt reminders for front seats and electronic brake-force distribution (EBD) as well as 3 additional safety assist technologies (SAT) such as autonomous emergency braking (AEB), adaptive cruise control (ACC), blind spot monitoring (BSM) etc.