

# INDEPENDENT OBSERVER REPORT ON LIVESTOCK VESSEL MAYSORA V115

FREMANTLE TO TEKIRDAG - MAY 31 TO JUNE 22, 2018

s. 22(1)(a)(ii)

Veterinary Officer, Department of Agriculture and Water Resources

***“In today’s world, the biggest challenge is that knowledge has become a commodity” [.] You start with noise – a plethora of prices, news and events – you have to structure that into data sets to create information and do more work on it to create knowledge.” – Sir Michael Hintze, Boss, April 2018***

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## 1. EXECUTIVE SUMMARY

My role as a DAWR Veterinary Officer Observer on board was described in the Directions Order of 25 May 2018 from Narelle Clegg, Assistant Secretary, Exports Division (**Attachment a**), viz. to monitor the activities of the <sup>s. 47F(1)</sup> and exporter in relation to their approved export programs for cattle and sheep through digital images and video, and to order the <sup>s. 47F(1)</sup> to take remedial action if a deficiency is observed.

No significant non compliances were observed in relation to the <sup>s. 47G(1)a</sup> CSEP during V115 and I was not required to issue any formal notice to the <sup>s. 47F(1)</sup> to remedy a deficiency.

This report describes the conditions and management control on board the vessel Maysora during its 115<sup>th</sup> voyage as a livestock carrier, departing Fremantle Port on 31 May 2018 at 23:50 hrs and arriving at Tekirdag, Turkey on 21 June 2018 at 24:00 hrs

The vessel departed Fremantle where LNC-10201 was loaded with 68,039 sheep and 3008 cattle. I joined the voyage at Fremantle Port after spending the previous day accompanying DAWR VO <sup>s. 22(1)(a)(ii)</sup> on full inspections for sheep and sample inspection for cattle at the various Registered Premises the livestock were being quarantined. This consignment and vessel was the first out of Australia to undertake a voyage under the new allometric stocking densities that was recommended for sheep in the McCarthy Review on 10 May 2018. This vessel was also the first out of Australia to host an Independent Observer, <sup>s. 22(1)(a)(ii)</sup> on its' last voyage.

The overall mortality in sheep was 0.23% and none in cattle.

A standard series of photos and videos were taken each day of the same pens to record changes to the condition of the livestock and pens over the voyage. Other photos and videos were collected as indicated by the circumstances of the voyage.

Personal observations and reported opinions are indicated by *italicised* text in the body of the report. My main observation through the voyage apart from the appreciation for the mammoth task it is to keep a livestock vessel maintained, was the incredible amount of space left within sheep pens that was not being used up by the animals; and the various sheep and cattle behaviours that have not been considered under the blanket allometric stocking density values provided in the McCarthy Review. Animal welfare should evolve through well researched evidence-based science; and policies should be carefully made in-line with this evidence instead of immediate reactions to public outcry.

Despite it being the month of Ramadan when most crew were fasting during the day, all levels of care were maintained for both animals and people on-board throughout the journey

<sup>s. 47C(1)</sup>

<sup>s. 47C(1)</sup>

<sup>s. 47C(1)</sup>

Over the course of the voyage I was treated with utmost respect by the Maysora crew who ensured my journey was as comfortable as possible. It was certainly a valuable professional experience where I had the pleasure of being indulged in the intricacies of the live export trade to the Middle East by a very experienced <sup>s. 47F(1)</sup> - a trade that has allowed Australia to set the standards globally over the last few decades.

## 2. MV "MAYSORA"

### a) HISTORY

Built in Argentina in 1989 as a container vessel and converted in 2001 in Singapore as a livestock vessel. This is voyage no. 115 as a livestock vessel.

Originally Decks 1 to 7 were designed for cattle and Decks 8 to 11 for sheep.

In 2014 D7 and D8 were converted to dual use cattle and sheep.

Decks 9 to 11 are twin sheep decks (i.e. each of these decks contains both an upper and lower deck).

s. 47F(1)

s. 47F(1)

s. 47F(1)

s.22(1)(a)(ii)

s. 47C(1)

s. 47C(1)

The vessel has regular AMSA inspections and had its last dry dock inspection in Singapore on 4 August 2014. This AMSA inspection is valid for 5 years.

s. 47C(1)

s. 47C(1)

There was also an intermediate examination at

berth in Turkey in 2017. The vessel is AMSA compliant.

A full suite of photos taken in September 2017 and also during this voyage are available on DAWR files (s. 47F(1) May 2018).

### b) SIZE AND LAYOUT

s. 47G(1)(a)

### c) FLOORING

The concrete floors in the pens are coated with a paint called Bolidet, which claims to be hard wearing and non-slip (s. 22(1)(a)(ii) May 2018). The flooring appeared to be in good condition, consistent with s. 22(1)(a)(ii) last report.

### d) SERVICES

#### i. Fodder Storage

s. 47G(1)(a)

s. 47G(1)(a)



Fig 1. Chaff and saw dust stored away from environmental damage within deck

ii. Water

s. 47G(1)(a)

s.22(1)(a)(ii)

iii. Power

s. 47G(1)(a)

s.22(1)(a)(ii)

iv. Ventilation

s. 47G(1)(a)

s.22(1)(a)(ii)

I had the pleasure of meeting the s. 47G(1)(a) main shipping Engineer s. 47F(1) whilst I was at port in Tekirdag. He explained the new volumetric ventilation system

implemented on the Maysora through the use of multiple mechanisms that have been tested by the company in consultation with AMSA. This included the use of mesh around the mushroom in vents to allow for more air flow through the ducts. He mentioned how simple changes like these had led to 4 times the increase in air volume into the vessel.

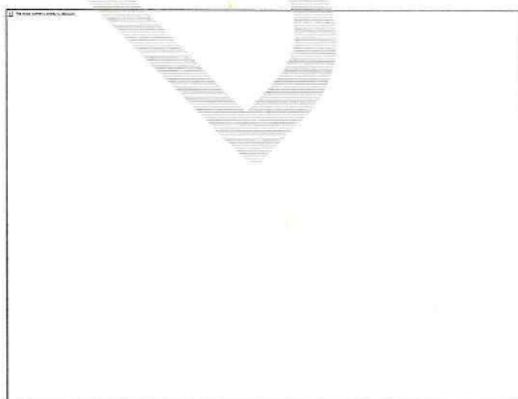
s. 47G(1)(a)

s. 47G(1)(a)

It was questioned during these conversations why DAWR was attempting to regulate PAT systems implemented in vessels already approved by AMSA as AMSA is the regulating body that has the expertise to assess the technicalities of these systems.



**Fig 2-4. Ventilation ducts have been recently enhanced with steel plates within to direct more airflow into the pens and towards the animals.**



**Fig 5. Extra fans placed at all pens located within identified 'hot spots' of the ship carrying livestock. Observations were made of crew members walking into pens to ensure that air from the fans was being directed at the animals to maintain comfort.**

v. Engine

The engine is a **s. 47G(1)(a)** for the technically minded but suffice to say the engine and generator room is a very large scale operation (**s. 22(1)(a)(ii)** May 2018).



Fig 6. Engine room

3. MANAGEMENT

s.47F(1)

s. 47G(1)(a)

s.47F(1)

s.22(1)(a)(ii)

s. 47C(1)

s.22(1)(a)(ii)

s.47F(1)

s.47F(1) s.47F(1); s.47G(1)(a)

s.47F(1)



s. 47C(1)

s.47G(1)(a)

s.33(a)(iii)

s.33(a)(iii)

b) Maysora

i.

s. 47F(1)

s.47G(1)(a)

ii.

s. 47F(1)

iii.

s. 47F(1)

s. 47F(1)

s. 47F(1)

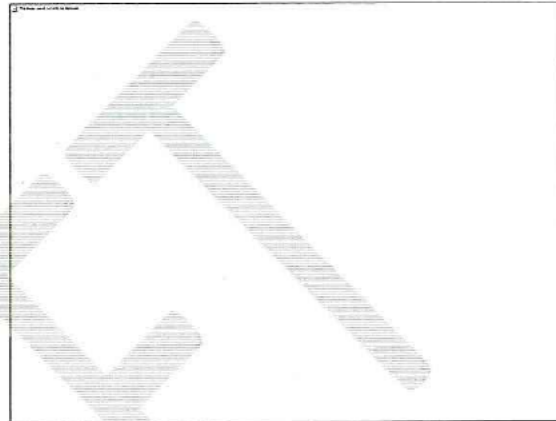


Fig 7-8. Crew interacting with livestock on-board. Fig 7. Shows crew member hand-feeding a shy 'pilot sheep'. Pilot sheep are trained during the journey of the voyage to lead the rest of the herd out during unloading (Permission granted to use photos by individuals captured).

s. 47G(1)(a)



**Fig 9. New feed and water troughs built by technicians on-board during voyage 115**



**Fig 10. Water from troughs are manually tipped onto buckets such as this and then poured down a drain instead of spillage into pens**

iv. s. 47F(1)

There is also a hierarchy of s. 47F(1) (s. 22(1)(a)(ii) May 2018). s. 47F(1)

v. s. 47F(1)

s 47F(1); s 47G(1)(a)

(s. 22(1)(a)(ii) May 2018).

vi. Capacity on Board

The maximum number of people allowed on board is 80. During this voyage there were 76, including the Observer.

4. s. 47F(1) and s. 47F(1)

a)

s. 47F(1)

s.47G(1)(a)

s.47G(1)(a)

s.22(1)(a)(ii)

s.45(1) s.47F(1) s.47F(1)

s45(1); s 47F(1)  
s.47F(1)

b)

s. 47F(1)

s. 47F(1)

s.47G(1)(a)

s.47G(1)(a)

s.22(1)(a)(ii)

s. 47C(1); s. 47F(1)

ii.

s. 47F(1)

s.47G(1)(a)

s.47G(1)(a)

s.47G(1)(a)

s. 47F(1)

s. 47C(1)

s.47F(1)

s.47F(1) s.47F(1)

s.47F(1)

s.47F(1)

s.22(1)(a)(ii)

s.22(1)(a)(ii)

## 5. THE CONSIGNMENT

The Notice of Intention for LNC-010201 (cattle and sheep to Turkey) was put in by on 10 May 2018. The initial consignment was meant to export 6100 cattle and 70,000 sheep. <sup>s. 47G(1)(a)</sup> had met with a range of people on 10 May 2018 in Canberra, including the department but had not been advised of any implementation dates for the McCarthy review at this point in time.

However, following the release of the McCarthy review (**Attachment c**) the following day several recommendations made in the review were implemented immediately. This included the reduction of stocking densities to follow an allometric scale value of 0.033k, curfew adjustments, sawdust, the reportable mortality level reduced to 1% and provision of a heat stress management plan.

A Notice of Intention (NOI) was sent by Narelle Clegg, Assistant Secretary LAE, to on 21 May 2018 outlining the proposed conditions to which <sup>s. 47G(1)(a)</sup> **s. 47F(1)** of <sup>s. 47G(1)(a)</sup>

s. 47G(1)(a)

s.47F(1)

s.47G(1)(a)

s.47G(1)(a)

s.47G(1)(a)

s.47G(1)(a)

a) Pre Departure at Registered Premises

The sheep and cattle were held at DAWR 5 Registered Premises within 2 -2.5 hours' drive of Fremantle before their respective departures. At the Registered Premises they were prepared by the s. 47F(1) according to the Turkish protocol and introduced to pellets. The pre-departure procedures do not form part of this report however it is a very important leg of the journey for at least the following two reasons as noted by s. 22(1)(a)(ii) in his report:

i. Nutrition Management

The animals would presumably be introduced to a pellet ration during this stage. The feeding transition to the ship board diet needs to be carefully managed, particularly in the context of the additional challenges they are facing. s. 47C(1)

s. 47C(1)

( ' ' ' , May 2018).

s. 47C(1)

s.47F(1)

s.47F(1)

s.47G(1)(a)

s.47F(1)

s. 47C(1)  
s.47F(1)

s.47F(1)

s.47F(1)

ii. Final selection of animals

Animals are rejected at the registered premises for failing testing protocols, on health and welfare grounds and for commercial reasons. Selection is made by the s. 47F(1) s. 47F(1) in consultation with the exporter (s. 22(1)(a)(ii) May 2018).

*For this consignment 561 head of sheep and 15 head of cattle were rejected mainly for conditions such as lameness, and eye problems by the land-based AAVs.*

*Following the McCarthy review and upon request by the LAE program in Canberra, all sheep on this consignment underwent a full inspection by DAWR VO within 48 hours of departure (Turkish protocol requirements), whereas under AA animals would have only been subjected to only the minimum sample size inspection required. Following full inspection, less than 1% of sheep were further rejected by DAWR VO.*

*As for the cattle, it was requested by the LAE program in Canberra to continue with sample inspections as required under AA. This included inspection of 300 head at s. 47G(1)(a) and s. 47G(1)(a) Feedlot and 400 head at s. 47G(1)(a) s. 47C(1) s. 47C(1)*

s.22(1)(a)(ii)

*The sheep and cattle were examined at loading by the s. 47F(1) at Fremantle Port and a number of sheep were rejected (probably up to 100) for eye problems and lameness. A final consignment number of 68,039 sheep and 3008 cattle were recorded on ship manifest and documented on both Health and Export Certificates issued by DAWR VO.*

b) Consignment

i. Maysora V115

The voyage LNC-10201 commenced in Fremantle where 68,039 sheep and 3008 cattle were loaded over 2 days before departing on 31 May 2018 at 23:50 hrs.

ii. Livestock Categories

A detailed description of the cattle and sheep and their weights is provided in **Attachment c (iv) -HSRA**



Like with the last consignment, the cattle were divided into Pastoral, Euro and British.

s. 47G(1)(a)

The categories are probably based on the value of each category with Euro being most expensive, British next and Pastoral the cheapest (s. 22(1)(a)(ii), May 2018). As mentioned in s. 22(1)(a)(ii) report, the breeds that handled the journey the best were roughly in the reverse order.

The sheep were described along traditional lines of wether, hogget, ram and lamb.

c) Feed and Fodder Calculation

s. 47G(1)(a)

d) Load Plan, HSRA and Heat Stress Management Plan

The Heat Stress Risk Assessment and Load Plan were provided to LAE Canberra for assessment as these are considered core documents for Turkey.

s. 47G(1)(a)

s. 47G(1)(a) The final Load Plan was provided to me a few days into the voyage after adjustments were made within pens to ensure that all animals were comfortably distributed. This is common and good practise. It is important to note that the Load Plan is a useful guide in managing how animals should be penned by class and weights. However, during the voyage, numbers can change to ensure that animals have been catered to their relative sizes and sufficient space provided.

In this consignment the final Load Plan, provided several days after departure, had sheep allocated to pens in Decks 11, 10, 9 upper and lower, Decks 8, 7, 6, 5 and Deck 4 Hold 5, 6 and Hold 4 Rows C and D.

Cattle were allocated to Deck 1, 2, 3 and Deck 4 Hold 4 Rows A and B.

Using method followed by s. 22(1)(a)(ii) I verified the final Load Plan against the HRSA provided (**Attachment d (iv)**). The verification process demonstrated that 100% of pens (cattle and sheep) complied with ASEL standards for carriage of animals between May-October during the northern summer. All sheep had to be spaced according to the new allometric stocking densities and it can be seen that on paper, 90% of all sheep pens provided the required (or excess) amount of space for the class of animals within the pens. The 10% that came under were only under by an average of 0.09m<sup>2</sup>/head (**Attachment d (v)**). This is not significant given that visually, it was observed that all animals within all pens had excessive amounts of space during this voyage. Refer to videos taken of these specific pens (**Attachment d (vi)**).

Also find attached the additional Heat Stress Management Plan that was provided by <sup>s. 47G(1)(a)</sup> which was an additional requirement for this consignment (**Attachment d (iii)**).

Observations on the Load Plan, HSRA, Heat Management Plan and new allometric stocking densities:

s. 47C(1)

s.47G(1)(a)

s.47F(1)

s.47F(1)

- - The allometric stocking densities proposed in the McCarthy report had been previously studied and published by J.Petherick and C.Phillips<sup>10</sup>. The equation  $\text{Area (m}^2\text{)} = 0.033W^{0.66}$  stated in their published review on space allowances for confined livestock was referenced to minimum space requirements required in **intensive housing systems**.
- The review suggests that "where it is desirable for all animals to lie simultaneously, then a minimum space allowance per animal [is] described by the allometric equation  $\text{Area (m}^2\text{)} = 0.027W^{0.66}$ " is sufficient<sup>10</sup>.

s. 47C(1)

- *Spacing requirements for sheep on livestock vessels should take into account their behaviour in that particular environment. Observations through this voyage were that most sheep stand for majority of the time during the first 3-4 days of the voyage and then majority are seen to lie down and ruminate after meals for the rest of the trip after this acclimatization period. They seem to not be bothered with physical contact with each other, unlike in pigs (where allometric densities of 0.033k values have been studied) and seem to prefer lying down next to each other in close contact. They also appear to huddle together in a group when seas are rough appearing to support each other. It is also rare to see all sheep lying down at once in a pen. There is always a small percentage standing despite any extra space provided.*

s. 47C(1)

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s. 47C(1) *Majority of the crew apart from new beginners understood animal behaviour and husbandry extremely well and responded to changes in behaviour with appropriate actions as required. Food and water troughs were constantly cleaned and filled, pads were always maintained dry and any animals showing signs of illness, distress or inappetance pulled aside and pen separately in hospitals.*

s. 47C(1)

s. 47C(1)

## 6. THE VOYAGE

### a) Route

The route taken was direct to the Gulf of Aden (passing just west of the Maldives) before sailing past Jeddah to the Suez Canal and then directly to the Turkish Port of Tekirdag (120 km west of Istanbul). The total distance is 12,938 km from Fremantle and 20 days sailing (s. 22(1)(a)(ii) May 2018).

s. 47G(1)(a)

s.47F(1)

s.47F(1)

s.47F(1)

s.47F(1)

s.47F(1)

s.47F(1)

s.47F(1)

s.47F(1)

s.47F(1)

The routine described above by s. 22(1)(a)(ii) did not change during Maysora v115

s. 47C(1)