



NEW ZEALAND
CUSTOMS SERVICE
TE MANA ĀRAI O AOTEAROA

TIME RELEASE STUDY 2022





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ACRONYMS

| | |
|---------|--|
| CCA | Customs-controlled Area |
| CEDO | Customs Export Delivery Order |
| DO | Delivery Order |
| FCL | Full Container Load |
| JBA | Joint Border Analytics |
| LCL | Less than Container Load |
| MAWB | Master Air Waybill |
| NZCS | New Zealand Customs Service Te Mana Ārai O Aotearoa |
| R&A | Revenue and Assurance |
| TEU/FEU | Twenty-foot/Forty-foot Equivalent Unit (sea cargo container) |
| TRS | Time Release Study |
| ULD | Unit Load Device (air cargo can) |
| WCO | World Customs Organization |



TABLE OF CONTENTS

| | |
|--|----|
| EXECUTIVE SUMMARY | 5 |
| SECTION ONE: Setting the Scene | 8 |
| Introduction | 8 |
| Background | 8 |
| Reasons | 8 |
| Aims and objectives | 8 |
| Methodology | 8 |
| Scope of the study | 8 |
| Key measures | 9 |
| SECTION TWO: Analysis of Containerised Sea Cargo | 11 |
| Imports: Key data and measures | 11 |
| Imports: Port data | 12 |
| Exports: Key data and measures | 13 |
| Exports: Port data | 14 |
| SECTION THREE: Analysis of Air Cargo | 16 |
| Flight details | 16 |
| Imports: TRS events and times | 16 |
| Exports: TRS events and times | 17 |
| SECTION FOUR: Observations & Recommendations | 19 |
| Observations | 19 |
| SECTION FIVE: Summary | 19 |
| SECTION SIX: Appendices | 21 |
| APPENDIX A: Definitions | 21 |
| APPENDIX B: Additional data | 22 |
| Sea Imports: Top 10 overseas country of loading | 22 |
| Sea Exports: Top 10 port of discharge country | 23 |
| Sea Cargo: Entry version statistics | 24 |
| Air Imports: Top 10 overseas country of loading | 25 |
| Air Exports: Top 10 overseas country of discharge | 26 |
| APPENDIX C: Date of entry clearance relative to the TRS week | 27 |
| Sea cargo | 27 |
| Air cargo | 28 |





EXECUTIVE SUMMARY

A time release study (TRS) is a World Customs Organization (WCO) method to measure Customs performance in clearing cargo. Performance is measured based on the time it takes Customs to release cargo from the time of arrival of the means of transport.

The Revenue and Assurance (R&A) group of the New Zealand Customs Service (Customs) were commissioned to carry out a TRS in 2022.

The main reasons and aims to do this study are:

1. provision of data to support Customs R&A group engagement with New Zealand businesses involved in international trade.
2. to automate the integration of data from various sources collected for the TRS, and carry out verification and validation checks on the integrated data to reduce the time compared to a manual checking process.
3. this TRS has been designed to include a repeatable, systematic approach to the collection and/or processing of TRS data, to test, confirm and automate processes to utilise for future studies.
4. to update the baseline TRS measures on Customs clearance of cargo.
5. to share the findings and experiences from this study, including innovations to the methodology and reporting, with the WCO and other international fora to contribute to the knowledge on Customs involvement in international trade flows.

This study targeted all international cargo vessels and flights for the week **Thursday 22 September to Wednesday 28 September (7 days)**.

- During this week, a total of 12,112 import entries and 5,267 export entries were reported for all air and sea cargo.
- A high percentage, 91.5% of import entries for full containers (FCLs) were lodged and released by Customs before arrival for sea cargo.
- A lower percentage at 67% of import entries for air cargo were released before arrival, and on average, 8.5 hours after the arrival of the aircraft, reflecting the much shorter flight times from overseas departure to the aircraft landing.

Other key measures include:

- 91.3% of export entries for FCLs were lodged 48 hours before loading.
- 99.1% of export entries for air cargo were cleared before departure.

Although not directly comparable, this study replicates the studies carried out in 2009 and 2010. The measures and statistics from this study line up with what was found in the earlier studies.

In summary, based on the study's findings Customs processes and management of clearing cargo remains efficient and does not unnecessarily constraint the movement of legitimate cargo across the border.

The findings from this study can be used as a baseline set of times to compare to future studies; and to make changes to further improvements in the processing and clearance of cargo and should be shared internationally.

Key events and times 2022: Import FCLs

| Mode | Arrival to lodgement | Arrival to release | Lodge to release | Arrival to Gate-out |
|------------------------------|----------------------|--------------------|------------------|---------------------|
| SEA (3358/5626 entries/FCLs) | dd:hh | dd:hh | hh:mm | dd:hh |
| mean | -07:12 | -07:07 | 05:08 | 05:10 |
| median | -06:17 | -06:10 | 1 second | 04:10 |

Mode

| AIR (7580 entries) | Arrival to lodgement | Arrival to release | Lodge to release |
|--------------------|----------------------|--------------------|------------------|
| | hh:mm | hh:mm | hh:mm |
| mean | 05:30 | 08:44 | 03:14 |
| median | -13:10 | -12:11 | 1 second |

Note: Hours and minutes are rounded up or down

Note: CusMod processing takes seconds (estimated)

Note: Large outliers can affect the mean or average measure

Note: Only network problems would delay the processing of CusMod lodged entries in any major way

Key events and times 2022: Export FCL

| Mode | Receipt to lodgement | Lodgement to load | Lodge to release | Receipt to load |
|------------------------------|----------------------|-------------------|------------------|-----------------|
| SEA (2952/6863 entries/FCLs) | dd:hh | dd:hh | mm:ss | dd:hh |
| mean | 02:07 | 05:10 | 04:07 | 7:17 |
| median | 00:12 | 04:11 | 1 second | 5:18 |

Mode

| AIR (2213 entries) | Lodgement to depart | Release to depart | Lodge to release |
|--------------------|---------------------|-------------------|------------------|
| | dd:hh | dd:hh | mm:ss |
| mean | 01:13 | 01:13 | 02:40 |
| median | 01:03 | 01:03 | 1 second |

S1





SECTION ONE: SETTING THE SCENE

Introduction

Customs clearance of cargo is a significant activity in facilitating and holding up trade at the border. A time release study (TRS) is a method endorsed by the World Customs Organization (WCO) to measure customs administrations performance in clearing cargo via a standardised process. Performance is measured based on the time it takes Customs to release cargo at the time of the arrival of the means of transport conveying that cargo. A TRS measures Customs' contribution and commitment to trade facilitation – which benefits and grows the economy.

Background

It has been over 10 years since the last TRS, so this study will provide updated baseline measures. The study will also provide a snapshot on the movement of cargo as New Zealand moves into a trading environment after the disruptions caused by COVID-19 and that continue to cause disruptions.

This is the third comprehensive TRS carried out by Customs. The first two studies were carried out in 2009 with one TRS involving a joint study with the Australian Customs Service. The third TRS was carried out in 2010.

In 2019 the TRS methodology was modified and adapted for a study carried out to support the trans-Tasman Secure Trade Lane project.

Reasons

The main reason for this TRS is to:

- update baseline measures that measure the performance of Customs clearing cargo to compare with future scheduled studies.

Aims and objectives

The main aims of the study are to:

- provide Revenue and Assurance with data on Customs clearance times and the physical movement of cargo across the border
- automate some of the process and apply to future studies
- share the findings with external audiences.

The results from this study can be used to:

- assess the effectiveness of newly introduced and modified techniques, procedures, and technological changes
- establish an updated baseline dataset to measure and benchmark Customs performance in trade facilitation.

Methodology

The methodology of this study followed the WCO's Guide to Measure the Time Required for the Release of Goods Version 3, 2018 and adapted to local conditions, cargo volumes, and flows.

Phase One involved planning and preparation including a trial run:

- establishment of a Working Group from Border Operations, Joint Border Analytics (JBA), and R&A to co-ordinate the 2022 study
- engagement with port companies and air cargo carriers on the study and request for the supply of data
- collection of data for a trial (March 2022)
- work by JBA to verify/validate and automate some processes based on the trial.

Phase Two involved:

- completion of JBA work and automation of some processes
- completion of the work in preparation for the actual TRS.

Phase Three involved:

- the actual TRS
- collection of data from various sources
- emerging and checking of the datasets
- analysis of the data, and
- publication of the report.

Scope of the study

Date range: The week chosen for the study was: **Thursday 22 to Wednesday 28 September 2022.**

However, the actual data collection period spanned from several weeks before the actual study week and continued after this week. For the calculations of the measures the times are in New Zealand standard time.



Cargo scope: The scope of the study looked at air and sea cargo that required a declaration to Customs in the form of a standard import or export entry type, and that was discharged or loaded at New Zealand sea ports and international airports.

Air cargo: Data on all international flights that arrived or departed during the week and carried cargo was collected and used in this study. The data was sourced from air cargo operators.

Sea cargo: Data on containerised cargo (FCL and LCL) was sourced from port companies where a container vessel called at that port during the week to unload or load containers. Other cargo types – breakbulk, bulk – were excluded from the study.

Exclusions¹: Some vessel and cargo types were excluded from the study. In addition, some Customs data was also excluded. Further, this study only examines Customs role in clearing cargo to when the cargo is released from Customs control. The role of other border agencies, such as the Ministry of Primary Industries (MPI) who are also involved in the clearance of cargo at the border were not studied.

Entry type: Only cargo that was declared and cleared by a Customs import and export entry through CusMod was included in the study. Clearance by other types or methods were excluded.

CusMod entries: These are import and export entries lodged electronically by a customs broker or importer/exporter. CusMod undertakes checking of the entry – business rules, alerts, and risk assessment processes and then rejects or accepts the entry. If the entry is clean and valid it is cleared. Only a cleared entry can generate an electronic Delivery Order (DO). This is the time that Customs ‘releases’ the entry and cargo. The DO authorises the delivery of imports from the port (Gate out) or loading of exports onto the vessel or aircraft.

Time stamps are electronically recorded and saved to a database for CusMod lodged entries. The required information including times were later extracted from the data warehouse. If an entry is adjusted an updated version is created and this version becomes the current version.

Legislation: The ‘*Customs and Excise Act 2018*’ and The ‘*Customs and Excise Regulations 1996*’ set out the legal requirements in respect to imported and exported goods. Part 4(21) of the Regulations specifies the time which entry of goods applies for imports. In the case of goods imported by sea or air, the entry must be made

before the date on which the goods are imported **or within 20 working days** after the date of importation. An entry is deemed to have been passed when a DO message is generated by Customs.

Part 4(28) specifies the deadline for entry of goods for export. The deadline for which an entry of goods to which section 89(1) of the Act applies must be made is **48 hours before** the goods are shipped for export. An entry for goods exported under Section 89(1) is deemed to have been passed when a DO (or ‘CEDO’) is generated by Customs in respect of that entry.

Other data sources: The Customs systems do not record details or times for all events in the importation of cargo. Data was therefore sourced from other parties.

Port companies provided the vessels details, times, discharge lists and gate out times recorded when containers left the port.

Air cargo data was sourced from air cargo operators.

These additional times provides a more complete picture of the cargo clearance process.

Key measures

The primary TRS measure is: The arithmetic mean and/or median time between the arrival of the goods and their release into the economy.

Mean (average) and median (middle) times were calculated. Presenting both times helps to provide a better understanding of the movement of cargo and clearance process. A large outlier can have a significant impact on the average time, but less so on the median time. Other statistical measure reported include minimum and maximum values, and ranges.

Release versus Clearance terminology. This study only collected and analysed Customs data up to when Customs ‘clears’ the entry and ‘releases’ import cargo for delivery or export cargo for loading. In a Customs only TRS, release and clearance are the same. For a study involving other government agencies, release is specific to Customs, and clearance refers to the time all government agencies clear that cargo.

Other secondary measures were also calculated.

Only cargo where the times could be confirmed and validated was included in this study. Subsequently, some imported cargo was excluded from the study and the calculations.

Definitions for the key events are provided in Appendix A.

¹Cargo cleared by other types of entries, other than the standard import and export entry type for commercial goods with a customs value of over \$1,000. Other exclusions: cargo that was not matched across all the datasets, transshipments, goods cleared by ECI, transit cargo, cargo moved under bond, coastal cargo, exempt goods, diplomatic goods, military goods, empty containers, personal effects, ships stores, mail. Bulk and break-bulk cargoes and vessels were excluded.

S2





SECTION TWO: ANALYSIS OF CONTAINERISED SEA CARGO

Imports: Key data and measures

| Sea cargo: Key events, measures, and times | | |
|--|--------------------------|-------------------------|
| Event/measures | FCLs | LCLs |
| Import entries | 3,358 | 1,174 |
| Containers | 5,626 | 1,182 |
| Container vessels | 22 | 13 |
| Arrival to lodgement (mean) | -7 days, 12 hours | -1 day, 18 hours |
| Arrival to lodgement (median) | - 6 days, 17 hours | -1 day, 20 hours |
| Arrival to release (mean) | -7 days, 7 hours | -1 day, 14 hours |
| Arrival to release (median) | -6 days, 10 hours | -1 day, 18 hours |
| Lodgement to release (mean) | 5 hours, 8 minutes | 3 hours, 48 minutes |
| Lodgement to release (median) | 1 second | 1 second |
| Arrival to discharge (mean) | 1 day, 10 hours | 1 day, 5 hours |
| Arrival to gate-out (mean) | 5 days, 10 hours | 4 days, 11 hours |
| Released before arrival | 91.5 % | 64.2 % |

Note: Hours have been rounded up or down.

Note: Negative times indicate the event occurred before the arrival of the vessel at the port of discharge.

Data from 4,532 import entries and data on 5,626 FCL and 1,182 LCL containers were sourced to analyse the release and movement of cargo. The mean or average time, calculated for this study, for 'arrival to release' for FCL's was **7 days 7 hours**. This means entries were cleared and released by Customs on average over 7 days before the arrival of the vessel.

A plausible reason explaining the 7 days before arrival release by Customs is the Regulations were amended to allow lodgement and clearance of imported goods at **any date before import**. This compares to the regulations that were in force from earlier studies where import entries could only be lodged 5 days before import.

This also increased the percentage of imported FCLs cleared before arrival to over 90%.

In 2022, a few import entries were lodged and cleared well in advance of the date of arrival or date of import. The earliest time an entry was lodged and cleared was 60 days before the arrival of the craft carrying that cargo. While the last entry lodged and cleared was 18 days 12 hours after the arrival of the vessel. These times can have an impact on the average. The median or mid-point measure may then provide a more accurate measure, but the median is still 6 days 10 hours before arrival.

Explanation of the median and mean measures for the measure 'lodgement to release' for import FCLs: Import (and export) entries that are reported correctly are usually cleared for release by Customs immediately by the system. A high percentage (79%) of import entries and FCLs (94%) recorded on these entries were lodged and released as version 1 and processed immediately, resulting in a median or central value of 1 second. Whereas the mean, or average, is influenced by both small and large values. A number of entries took several days to process from lodgement to release and this accounts for the mean, or average, of 5 hours 8 minutes to process and release an entry.



The unloading of containers commences soon after the vessel is tied up and other formalities completed. During the TRS week, the earliest a container was unloaded was 40 minutes after arrival while the last container was unloaded from the vessel 5 days 6 hours after arrival.

On average FCLs remained on the port for 5 days 10 hours after arrival, with a range from the earliest gate out time of 3 hours after arrival to over 25 days after

arrival. One FCL remained undelivered at the end of the data collection period.

LCL cargo is different to FCL cargo and is analysed separately. However, the customs processes for reporting the cargo are the same and the port processes similar. This study found, 64% of entries for LCL cargoes are released early that is, pre arrival at an average of 1 day 14 hours before the arrival of the vessel.

Imports: Port data

| Sea Cargo: Key Events and Measurements by Port for FCLs | | | | | | | |
|---|-------------|-----------|---------|------------|----------|-----------|---------|
| Event/measure | Auckland | Tauranga | Napier | Wellington | Nelson | Lyttelton | Otago |
| Container vessels | 6 | 10 | 1 | 1 | 2 | 1 | 4 |
| FCLs unloaded | 2,640 | 1,780 | 77 | 296 | 45 | 537 | 251 |
| FCL type TEU/FEU | 1,353/1,287 | 727/1,053 | 32/45 | 173/123 | 37/8 | 272/265 | 89/162 |
| Import entries | 1,808 | 823 | 54 | 177 | 11 | 347 | 138 |
| Arrival to release (mean) | -7d, 20h | -6d, 12h | -6d, 8h | -8d, 4h | -6d, 12h | -8d, 18h | -4d, 6h |
| Arrival to discharge (mean) | 2d, 10h | 12h | 8h | 7h | 13h | 18h | 11h |
| Arrival to gate-out (mean) | 6d | 5d, 21h | 3d, 09h | 3d, 13h | 5d, 15h | 2d, 19h | 4d, 4h |
| % Released before arrival | 91.6 % | 91.4 % | 92.2 % | 95.3 % | 100 % | 94 % | 79.3 % |

There is some variation in the measures by individual port. However, a high percentage of import entries are lodged and release before the arrival of the vessel for all ports. Shipping line schedules will impact on the number of vessels that call into a port per week.

The split between container sizes (FCLs and LCLs) was 60:40. Sixty percent or 4,083 of containers imported were forty foot and 40 percent or 2,725 were twenty foot.



Exports: Key data and measures

Data from 3,054 export entries and data on 6,863 FCL and 63 LCL containers were sourced to analyse the release and movement of cargo. The percentage of export entries lodged 48 hours before loading was 91.3 percent.

On average export entries were lodged with Customs and released 5 days and 10 hours before loading (or cleared). There were 37.6% of export entries released

by Customs before the containers were receipted or delivered (Gate-in) at the port.

There were 63 containers that were recorded as LCL and loaded at three ports – Auckland, Tauranga, and Nelson. LCL cargo is reported earlier – one day – than FCLs. Due to the small number of LCL containers, loading ports, and entries, no detailed analysis was carried out.

| Sea cargo: Key events, measures, and times | | |
|--|------------------|------------------|
| Event/measures | FCLs | LCLs |
| Export entries | 2,952 | 102 |
| Containers | 6,863 | 63 |
| Container vessels | 22 | 12 |
| Receipt to lodgement (mean) | 2 days, 7 hours | -7 hours |
| Receipt to release (mean) | 2 days, 7 hours | -7 hours |
| Receipt to load (mean) | 7 days, 17 hours | 6 days, 3 hours |
| Lodgement to load (mean) | 5 days, 10 hours | 6 days, 10 hours |
| Release to load (mean) | 5 days, 10 hours | 6 days, 10 hours |
| Lodgement to release (mean) | 4 minutes | seconds |
| Release to depart (mean) | 5 days, 23 hours | 6 days, 18 hours |
| Released before receipt | 37.6 % | 63.1 % |
| Lodged 48 hours before load | 91.3 % | 92.3 % |



Exports: Port data

| Sea Cargo: Key Events and Measurements by Port for FCLs | | | | | | | | |
|---|----------|-------------|---------|------------|----------|-----------|---------|----------|
| Event/measure | Auckland | Tauranga | Napier | Wellington | Nelson | Lyttelton | Otago | Bluff |
| Container vessels | 5 | 12 | 1 | 1 | 2 | 1 | 4 | 1 |
| FCLs loaded | 934 | 3,406 | 196 | 114 | 481 | 255 | 1,102 | 375 |
| FCL type TEU/FEU | 592/342 | 1,309/2,097 | 20/176 | 52/62 | 245/236 | 128/127 | 432/670 | 232/143 |
| Export entries | 391 | 1,416 | 80 | 58 | 168 | 142 | 528 | 169 |
| Lodged 48 hours before load | 99% | 89% | 72.4% | 100% | 100% | 96.1% | 92.1% | 83.2% |
| Receipt to lodgement (mean) | -12h | 15h | 13h | 19h | 8d, 6h | -20h | 7d, 17h | 4d, 16h |
| Release to load (mean) | 7d, 17h | 4d, 14h | 3d, 20h | 8d, 1h | 5d, 4h | 4d, 21h | 5d, 12h | 7d, 20h |
| Receipt to load (mean) | 7d, 5h | 5d, 4h | 4d, 10h | 8d, 20h | 13d, 10h | 4d | 13d, 5h | 12d, 12h |
| Release to depart (mean) | 8d, 5h | 5d, 2h | 4d, 8h | 8d, 15h | 5d, 20h | 5d, 12h | 6d, 4h | 8d, 11h |
| Released before receipt | 54.4% | 43.9% | 20.9% | 34.2% | 7.5% | 65.9% | 17.1% | 26.7% |

It is observed that a high percentage of export entries are lodged 48 hours before loading at all ports. On average containers were released before loading by Customs with the average ranging from 8 days and 1 hour to 3 days and 20 hours by port.

The split between FCL container sizes was 56:44. Fifty six percent were forty-foot sized containers and 44 percent the smaller twenty-foot containers.

S3





SECTION THREE: ANALYSIS OF AIR CARGO

Flight details

During the TRS week data from 661 international flights that carried air cargo was collected. Auckland accounted for 93% (429/459) of the flights from overseas that carried imported air cargo². Export cargo was loaded onto 202 flights going to 85 countries during the week.

The unloading of aircraft followed a similar process for all flights. After 'on-blocks' – when the aircraft has stopped outside the terminal – passengers' luggage is usually unloaded first, then ULDs (air cans), followed by pallets and bulk cargoes. Cargo is delivered to the air cargo operators' premises which are Customs-controlled Areas (CCAs) located near the airport.

Cargo is usually delivered to the CCAs soon after unloading from the aircraft.

The processing for clearance and delivery is measured in hours rather than days.

Imports: TRS events and times

A total of 7,580 import entries and corresponding airway bills were used to calculate the times for air cargo imported during the TRS week.

Data on some of the events (compared to containerised sea cargo) in the movement of air cargo was not available. This resulted in fewer measures. However, the key TRS measure from arrival to release was able to be calculated.

The mean/average time from 'arrival to release' was 8 hours 44 minutes after the arrival of the aircraft.

A lower percentage of entries for air cargo were cleared before arrival at 67% compared to the same event with sea cargo.

Lodgement and clearance ranged from 14 days before the arrival of the flight carrying that cargo to 22 days after arrival.

Air cargo: Key events, measures, and times

| Event/measure | Measure (mean) | Measure (median) |
|----------------------|----------------|------------------|
| Lodgement to arrival | 5h, 30m | -13h, 10m |
| Arrival to release | 8h, 44m | -12h, 11m |
| Lodge to release | 03h, 14m | seconds |

Note: Hours are rounded up

Just over 79% of all air cargo entries were lodged before and on the day of the aircraft arrival. With 78% of all entries cleared for release before or on the day of arrival. Within one day after arrival 84% of entries had been lodged and released.

The time between the finalising the manifest, loading the aircraft, flight times, receiving all the information and completing the import entry puts pressure on the ability to lodge and receive clearance before the arrival of the aircraft carrying that cargo.

² Due to the dominance of Auckland Airport, individual airport measures are not reported, air cargo statistics and measures are reported at the national level.



Exports: TRS events and times

Air cargo: Key events, measures, and times

| Event/measure | Measure (mean) | Measure (median) |
|---------------------|----------------|------------------|
| Lodgement to depart | 1d, 13h | 1d, 3h |
| Release to depart | 1d, 13 h | 1d, 3h |
| Lodge to release | 2m, 40s | seconds |

A total of 2,213 export entries and corresponding airway bills were used to calculate the times for air cargo exported during the TRS week. The times for air cargo are measured in hours and minutes compared to days for sea cargo.

The time cargo is loaded onto the aircraft is not collected or recorded. The nearest event to this is the departure time of the aircraft. The mean/average time, calculated for this study, for 'release to depart' was **1 day 13 hours before departure**.

S4
S5





SECTION FOUR: OBSERVATIONS AND RECOMMENDATIONS

Observations

The 2022 study achieved the aims and objectives it set out to deliver. The study provides an updated set of baseline TRS measures. Customs should look to utilise the findings and engage with New Zealand businesses and other interested parties.

These measures confirm Customs has good processes in place to facilitate the clearance of cargo and does not unnecessarily impede delivery of cargo that is reported correctly.

These processes include electronic reporting; business rules, risk management and alerts system, deferred payment scheme, post entry auditing capability, and on-going engagement with the importing and exporting industry at all levels in Customs.

Although not directly comparable, the measures and results from this study do compare favourably with the measures and results from the earlier studies.

An objective of this TRS was for JBA to automate, integrate and validate and verify the data that previously

was a manual and time-consuming process. JBA have achieved this objective. A recommendation is that the next TRS should be carried as soon as practical to test the automated processes.

The import and export processes for containerised sea cargoes are understood with the key data recorded and readily available that can be matched to Customs data.

The import and export of air cargo is less understood with the data not easily available. A recommendation is that the next TRS should focus more closely on the movement of air cargo through the TRS process.

To achieve this, Customs should, before the next TRS, engage with the air cargo carriers and airlines to understand and identify the key events in the movement of air cargo and process and identify if and what data is collected and who records it. If this data is available, it should then be used for future studies to increase the knowledge on air cargo, and to add to the number of measures that can be reported for air cargo.

SECTION FIVE: SUMMARY

The 2022 study has provided updated key measures and statistics that inform and report on Customs performance in clearing cargo.

This study confirms Customs processes are in general efficient and do not hinder the movement of cargo

after its arrival or departure from a New Zealand port or airport.

To ensure the measures remain current regular studies should be scheduled for future years.

S6





SECTION SIX: APPENDICES

APPENDIX A: Definitions

| Key event | Definition |
|---|--|
| Arrival | <p>The date and time of the arrival of the means of transport (sea or air) conveying the goods at importation and when the goods enter Customs control.</p> <p>This means the docking time of the vessel at the port of discharge. The actual arrival time was supplied by the port authority. For aircraft this means the actual arrival time as recorded by the Customs passenger arrival report.</p> |
| Lodgement | <p>When a customs declaration or entry is reported and declared to the customs administration including all relevant and required information to obtain the release of the goods. For CusMod entries: this is the time stamp recorded when CusMod accepts and writes the information to the database, recorded as Entry Header Lodgement Date.</p> |
| Release | <p>The time at which Customs controls are completed and the goods are unimpeded and may be uplifted and removed by the importer, or cleared to load for export. However, the goods may still be subject to holds by the Ministry of Primary Industries (MPI), shipping lines, port authority, and air cargo operators.</p> <p>For CusMod entries: this is the time stamp recorded by CusMod as the: Entry Transaction History date and time. It is the time when the Delivery Order (DO) is generated, or the Customs Export Delivery Order 'CEDO' for export cargo.</p> |
| Clearance (not used for this TRS for imports) | <p>The point at which all border agency controls are completed, and the consignment is completely unimpeded. This is the time recorded as final clearance but may still be subject to holds by shipping lines and port companies. Note: for exports release and clearance are the same time.</p> |
| Discharge (or availability) | <p>This is the time recorded on the Discharge List when the container was physically unloaded off the vessel. The list and times were supplied by the port authority. This is also the time when the goods are physically available for delivery should the goods receive pre-arrival customs release.</p> |
| Gate Out (or delivery) | <p>This is the time recorded when the container/cargo is physically transported out the port gates. Authority to remove the goods is presentation of a Customs DO.</p> |
| Receipt (or Gate in) | <p>The point at which goods are delivered to a place of export at the port of export and enter physical customs control at the Customs port or airport. For sea cargo, this is time recorded by the port company when the container is receipted at the port gates. For air cargo, it is the time recorded when the consignment is received from the shipper</p> |
| Load | <p>The date and time recorded by the port company when the container is physically loaded on-board the vessel transporting it to an overseas destination.</p> |
| MAWB accept | <p>This is the time recorded by the airline's air cargo operator. It is the first time recorded and assumed to be the time when the air cargo is accepted at the air cargo operators' site.</p> |
| MAWB delivery | <p>This is the time recorded from the airlines air cargo operator. It is the first time recorded and assumed to be the time when the air cargo is delivered.</p> |
| Departure | <p>The date and time of the departure of the means of transport (sea or air) conveying the goods at exportation. For sea cargo departure, this means the time that the vessel departs from the port of loading. For air cargo departure, this means the off-blocks time recorded for the aircraft</p> |



APPENDIX B: Additional data

Sea Imports: Top 10 overseas country of loading

| Overseas country of loading for imports by FCLs | | | | | |
|---|---------|-------|-------------------------|---------------------------|----------------------------|
| Country | Vessels | FCLs | Released before arrival | Arrival to release (mean) | Arrival to Gate-out (mean) |
| All countries (51) | 22 | 5,626 | 91.5% | -7d, 7h | 5d, 10h |
| Malaysia | 7 | 1,342 | 95.1% | -10d, 22h | 4d, 17h |
| Singapore | 10 | 1,261 | 90.8% | -6d, 13h | 5d, 12h |
| Australia | 16 | 1,207 | 89.2% | -4d, 19h | 5d, 21h |
| China, PR of | 8 | 523 | 88.5% | -6d, 12h | 6d, 15h |
| USA | 8 | 171 | 82.5% | -6d, 18h | 4d, 21h |
| Panama | 2 | 130 | 88.5% | -7d, 22h | 8d, 1h |
| Thailand | 3 | 105 | 97.1% | -5d, 21h | 3d, 19h |
| Hong Kong (SAR) | 3 | 102 | 100.0% | -8d, 22h | 9d, 6h |
| Indonesia | 4 | 91 | 98.9% | -9d, 9h | 5d, 12h |
| Vietnam | 4 | 83 | 98.8% | -12d, 3h | 2d, 22h |

During the TRS week, containers were shipped (based on port of loading) from 51 countries. The top 10 overseas country of loading accounted for 90 percent of all import FCLs unloaded during this week.

Twenty two container vessels made 25 calls to New Zealand ports during the week. Many of the vessels loaded cargo from more than one overseas port before arriving in New Zealand. Sixteen of the 22 vessels loaded containers at an Australian port.

Noting that some shipping schedules are fortnightly and monthly and may not have been scheduled to call at a New Zealand port during the TRS week. Weekly statistics will change dependent of vessel calls and routes.

These country level measures and statistics follow the overall measures and statistics. Import entries for containers loaded in Australia were cleared the closest to the arrival time of the vessel at 4 days 19 hours. This may reflect the shorter transit times across the Tasman with fewer days between loading and arrival at a New Zealand port compared to the transit times from other countries further away.



Sea Exports: Top 10 port of discharge country

| Port of discharge country for exports by FCL | | | | | |
|--|---------|-------|--------------------------|-----------------------------|-------------------------|
| Country | Vessels | FCLs | Lodgement to load (mean) | Lodged 48 hours before load | Released before receipt |
| All countries (59) | 22 | 6,863 | 5d, 10h | 91.3% | 37.6% |
| Australia | 11 | 1,388 | 5d, 9h | 94.4% | 51.6% |
| Malaysia | 9 | 1,146 | 5d, 16h | 96.2% | 53.6% |
| Singapore | 8 | 767 | 13h, 4h | 100.0% | 75.6% |
| China, PR of | 10 | 715 | 3d, 20h | 90.1% | 31.5% |
| USA | 4 | 390 | 5d, 12h | 90.8% | 24.8% |
| Taiwan | 8 | 339 | 5d, 15h | 94.1% | 39.9% |
| Hong Kong (SAR) | 5 | 323 | 4d, 3h | 99.3% | 40.8% |
| Fiji | 2 | 277 | 3d, 19h | 88.8% | 28.9% |
| Indonesia | 8 | 209 | 4d, 11h | 85.7% | 37.8% |
| French Polynesia | 2 | 205 | 4d, 21h | 78.6% | 41.7% |

The top 10 countries for export containers accounted for 83% of all FCLs loaded during the TRS week. Like imports, the shipping schedules will impact and will change the country of discharge numbers weekly.



Sea Cargo: Entry version statistics

| Import and Export entry by version number | | | | | |
|---|-------|---------|------------------|-------|---------|
| Imports: version | Count | Percent | Exports: version | Count | Percent |
| 1 | 3,597 | 79.4% | 1 | 2,329 | 76.3% |
| 2 | 702 | 15.5% | 2 | 568 | 18.6% |
| 3 | 154 | 3.4% | 3 | 118 | 3.9% |
| 4 | 49 | 1.1% | 4 | 32 | 1.1% |
| 5 | 16 | 0.4% | 5 | 5 | 0.2% |
| 6 | 9 | 0.2% | 7 | 1 | 0.03% |
| 7 | 2 | 0.04% | 8 | 1 | 0.03% |
| 8 | 2 | 0.04% | | | |
| 12 | 1 | 0.02% | | | |
| | 4,532 | 100.00% | | 3,054 | 100.00% |

Whenever data and information are entered into the Customs' system to lodge an entry, an entry version is created and the time recorded. Every time that entry is changed or adjusted an updated version number is created and a new time recorded. For most entries it is the current or latest version that is used to calculate the TRS measures. However, for some entries other versions and times are used, as that version is the version where clearance for delivery or loading was authorised.

For the TRS week, a total of 4,532 import entries for sea cargo were lodged with 79% cleared under version 1; while 3,054 entries for exported sea cargo were lodged and 76% cleared under version 1.

There is a high percentage of both import and export entries lodged by brokers/traders and accepted by the Customs systems as correct on the first version, but with some room for improvement.



Air Imports: Top 10 overseas country of loading

| Overseas country of loading for imports by AWB | | | |
|--|---------------------------|---------------------------|-------------------------------|
| Country | % Released before arrival | Arrival to release (mean) | Release: before/after arrival |
| All countries (71) | 67.0% | 8h, 44m | After |
| Australia | 70.8% | 1d | After |
| USA | 70.0% | 1h, 12m | After |
| China PR of | 67.5% | 19h, 26m | Before |
| Singapore | 59.4% | 21h, 22m | After |
| Hong Kong (SAR) | 62.9% | 3h, 36m | Before |
| Germany | 61.8% | 1d, 13h, 41m | After |
| United Kingdom | 67.9% | 10h, 19m | Before |
| Italy | 70.7% | 2h, 38m | After |
| United Arab Emirates | 46.3% | 1d, 29m | After |
| Taiwan | 63.8% | 1d, 10h, 5m | After |

Country of loading is based on the loading airport code and was sourced from the Customs import entry and data supplied by the air cargo operators. Some cargo may not have been loaded in that country but would

have been reloaded onto another aircraft in another country before arriving in New Zealand.

The verse applies to the country of discharge for exported air cargo on the next table.



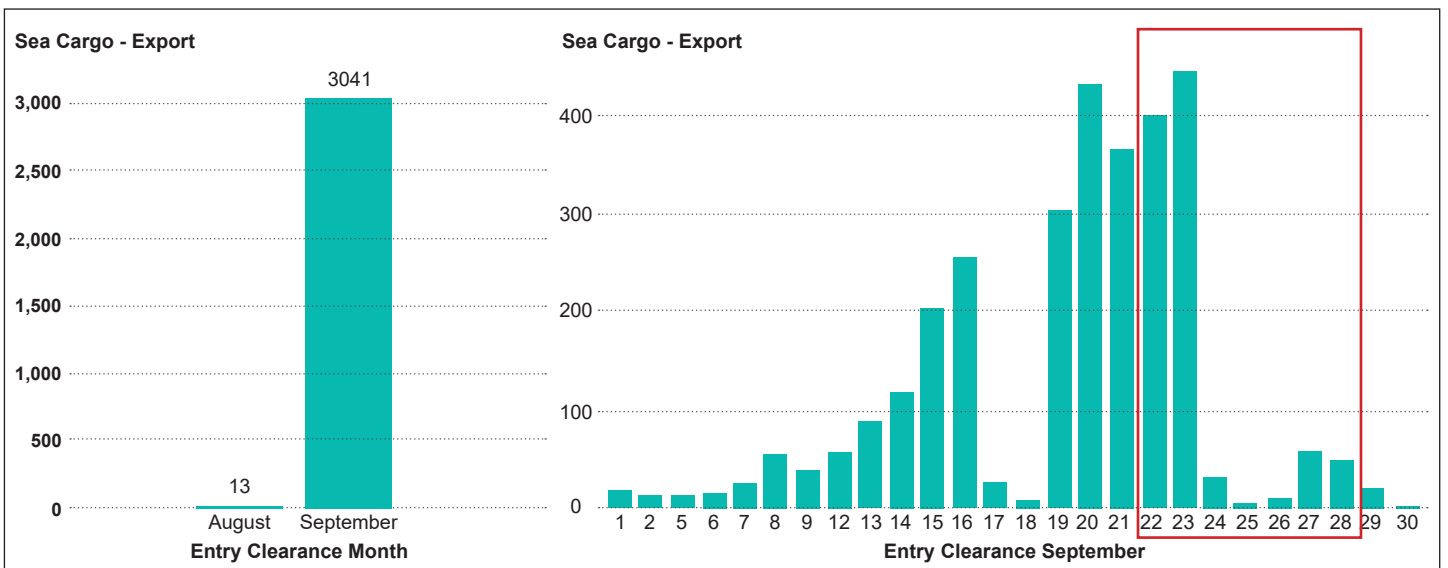
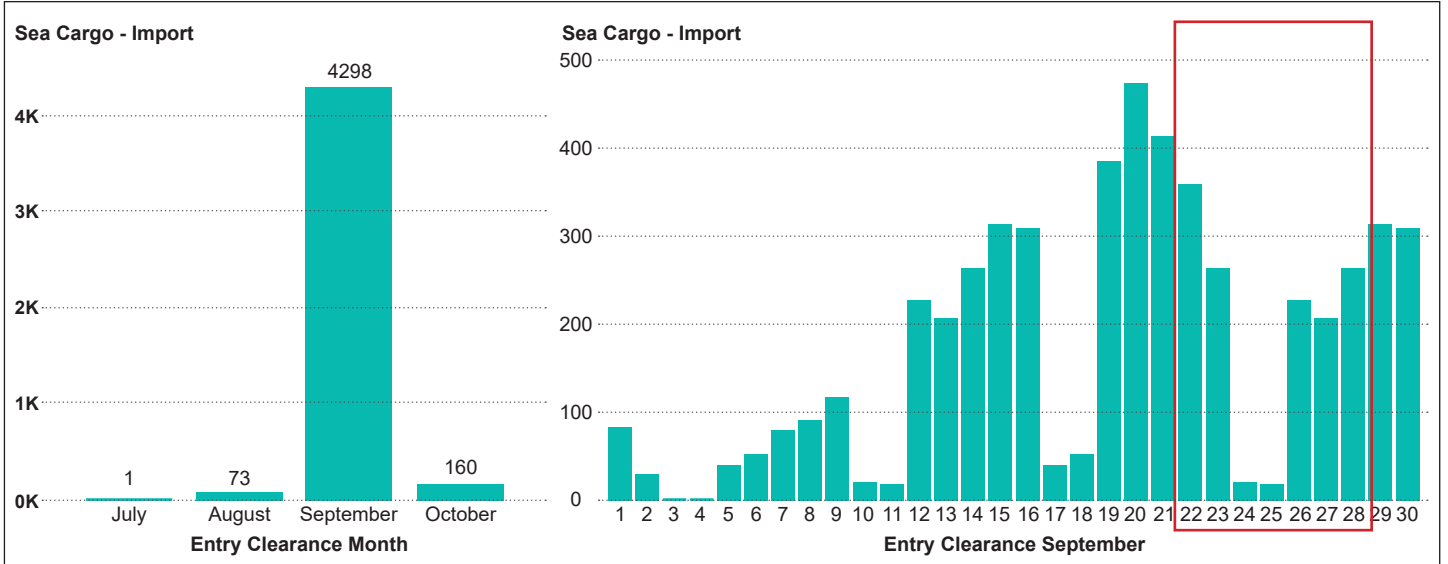
Air Exports: Top 10 overseas country of discharge

| Overseas country of discharge country for exports by AWB | | |
|--|-----------------------------|------------------------------|
| Country | % released before departure | Released to departure (mean) |
| All countries (85) | 99.1% | 1d, 13 h |
| Australia | 99.4% | 1d, 9h |
| USA | 99.6% | 1d, 17h |
| United Kingdom | 98.9% | 1d |
| Fiji | 99.3% | 1d, 1h |
| Hong Kong (SAR) | 99.2% | 1d, 15h |
| United Arab Emirates | 99.1% | 1d, 13h |
| China PR of | 100.0% | 1d, 4h |
| Singapore | 98.9% | 1d, 4h |
| Malaysia | 100.0% | 2d, 4h |
| Canada | 100.0% | 1d, 23h |



APPENDIX C: Date of entry clearance relative to the TRS³ week

Sea cargo



³The red rectangle in these charts indicate the actual TRS week



Air cargo

