

COVID-19: Cargo movement update

Date: 28 August 2020

About this update

This update — *the sixth of its kind* — contains a combined overview of the flow of air, sea and road freight to and from South Africa over the course of the last week. The report provides a consolidated view of the different modalities published earlier by the Business for South Africa supply chain team.

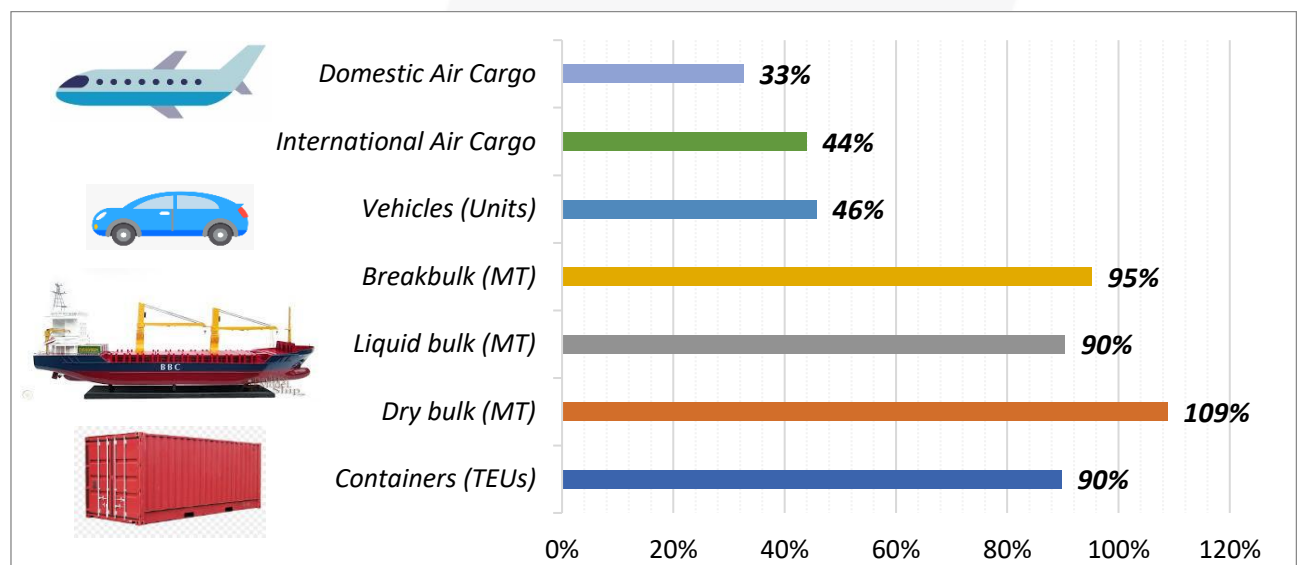
Weekly snapshot

Table 1 - Port volumes and air cargo flows compared to last week

Flows	Current ¹			Previous ²			Growth
	Import	Export	Total	Import	Export	Total	
Port Volumes (TEUs)	31 229	41 219	72 448	28 681	41 202	69 883	↑4%
Air Cargo (tons)	1 931	1 207	3 138	1 877	1 138	3 015	↑4%

Monthly snapshot

Figure 1 - Monthly³ cargo flows compared to the same period in 2019



Key Notes

- An average of ~10 350 TEUs were handled a day over the course of the last week, ↑366 from last week

¹ 'Current' means the last 7 days' (a week's) worth of available data.

² 'Previous' means the preceding 8-14 days' (a week's) worth of available data.

³ 'Monthly' means the last full month's worth of available data compared to the same month in 2019 (in this case July 2020 versus July 2019)

- Air cargo volumes have generally remained constant in recent weeks, with international air cargo⁴ flows at approximately **60%** compared to pre-lockdown levels. Domestic flows have also levelled.
- Regionally, cross-border road delays are costing South Africa an estimated **\$371 million** annually
- Globally, average freight rates have once again increased, this time to **\$2,250.63 per 40'**, which is a **3.4%** increase on last week

Ports Update

This section provides an overview of the flow of containerised cargo to South Africa's commercial ports.

Container flow overview

The following two tables indicate the container flows for the last 7 days, as well as the projected container flows for the next 7 days.

Table 2 - Container Ports - 7-day flow forecasted for 21 August to 27 August⁵

7-day flow forecast (21.08.2020 – 27.08.2020)		
TERMINAL	NO. OF CONTAINERS TO DISCHARGE (IMPORT)	NO. OF CONTAINERS TO LOAD (EXPORT)
DURBAN CONTAINER TERMINAL PIER 1:	4 106	4 150
DURBAN CONTAINER TERMINAL PIER 2:	14 279	20 034
CAPE TOWN CONTAINER TERMINAL:	3 934	6 792
NGQURA CONTAINER TERMINAL:	4 937	7 663
PORT ELIZABETH CONTAINER TERMINAL:	1 425	2 563
TOTAL:	28 681	41 202

Source: [Transnet](#), 2020. Updated 28/08/2020

Table 3 - Container Ports - 7-day flow forecast for 28 August to 3 September⁶

7-day flow forecast (28.08.2020 – 03.09.2020)		
TERMINAL	NO. OF CONTAINERS TO DISCHARGE (IMPORT)	NO. OF CONTAINERS TO LOAD (EXPORT)
DURBAN CONTAINER TERMINAL PIER 1:	5 182	6 963
DURBAN CONTAINER TERMINAL PIER 2:	14 968	16 581
CAPE TOWN CONTAINER TERMINAL:	5 198	6 836
NGQURA CONTAINER TERMINAL:	5 521	9 169
PORT ELIZABETH CONTAINER TERMINAL:	360	1 670
TOTAL:	31 229	41 219

Source: [Transnet](#), 2020. Updated 28/08/2020

Export container volumes have continued to outstrip import container volumes, registering a staggering **12,500 TEUs** more this week (*Table 2*) and more than **10,000 TEUs** next week (*Table 3*). The Port of Durban has seen significant volume increases over the course of the last month, with volumes at the Port of Cape Town also picking up in recent weeks.

Current stack occupancy across the board is approximately **75%** and **50%** in Durban and Cape Town respectively. The following figure provides a more comprehensive flow of container cargo to and from our

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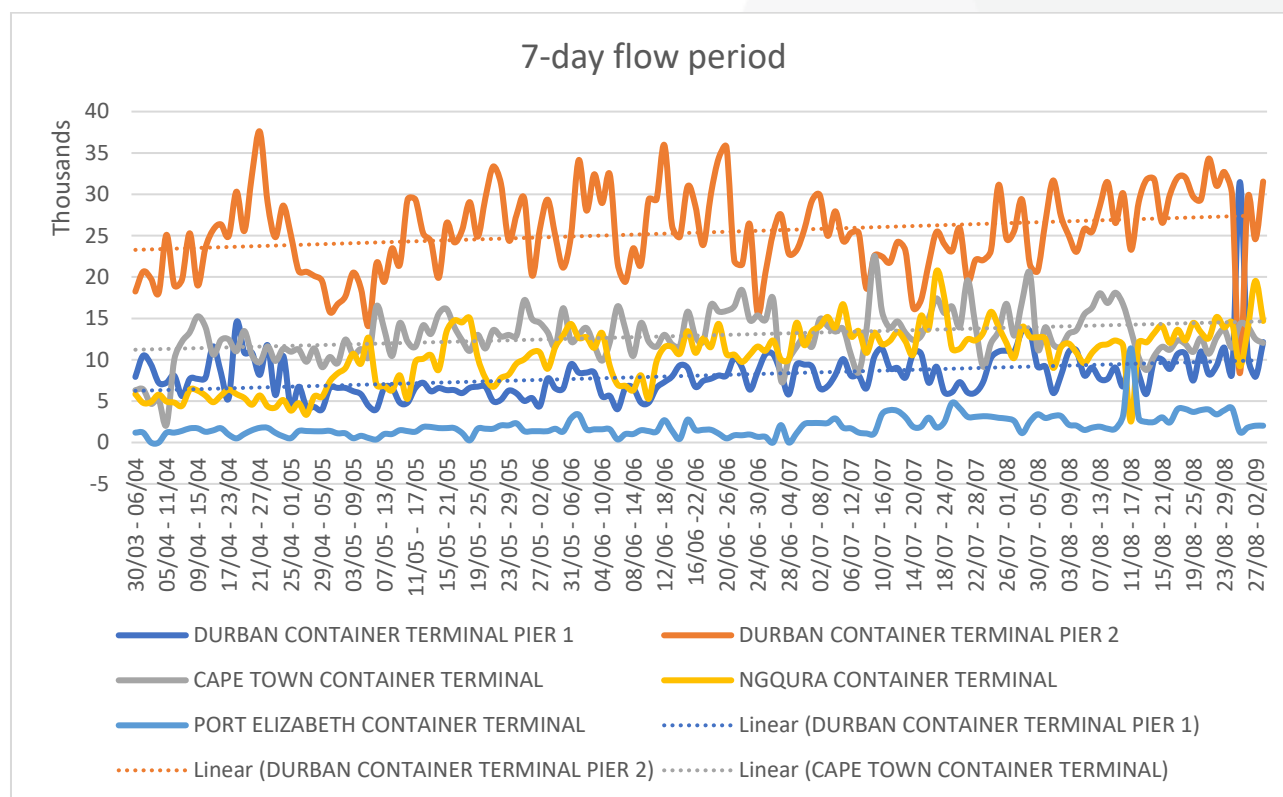
⁴ There is no further update on domestic air cargo flows for this week, however, an update will return for the next issue of this report

⁵ It remains important to note that a fair percentage (approximately 28%) of containers are neither to be imported nor exported, but rather consist of empties and transshipments. Due to container imbalances, this proportion is fluctuating more than usual.

⁶ As noted in footnote 1.

commercial ports, indicating the 7-day rolling forecast for container flows from the onset of the lockdown period at the end of March.

Figure 2 - 7-day flow forecast for total cargo movement (TEUs: 30 March to 28 August; week-on-week)

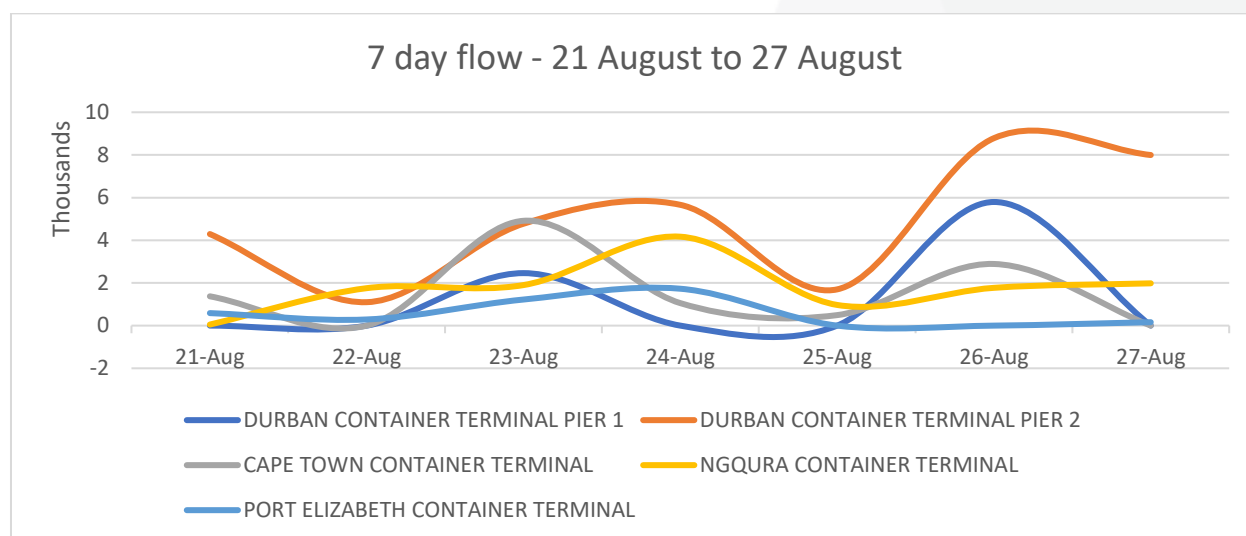


Source: Calculated using data from the [Transnet Port Terminal](#) updates. Updated 28/08/2020

Due to the delayed effects of the pandemic and standard lead times in ocean-going freight, overall container volumes have increased by 4% since last week and now hovers around **~90%** compared to the same time the previous year. Nonetheless, the noticeable improvement has continued over the course of recent weeks, which has been encouraging, especially in terms of exports. The forecast also remains positive. Trend lines have been included for the three major container terminals, all indicating a positive trajectory since lockdown.

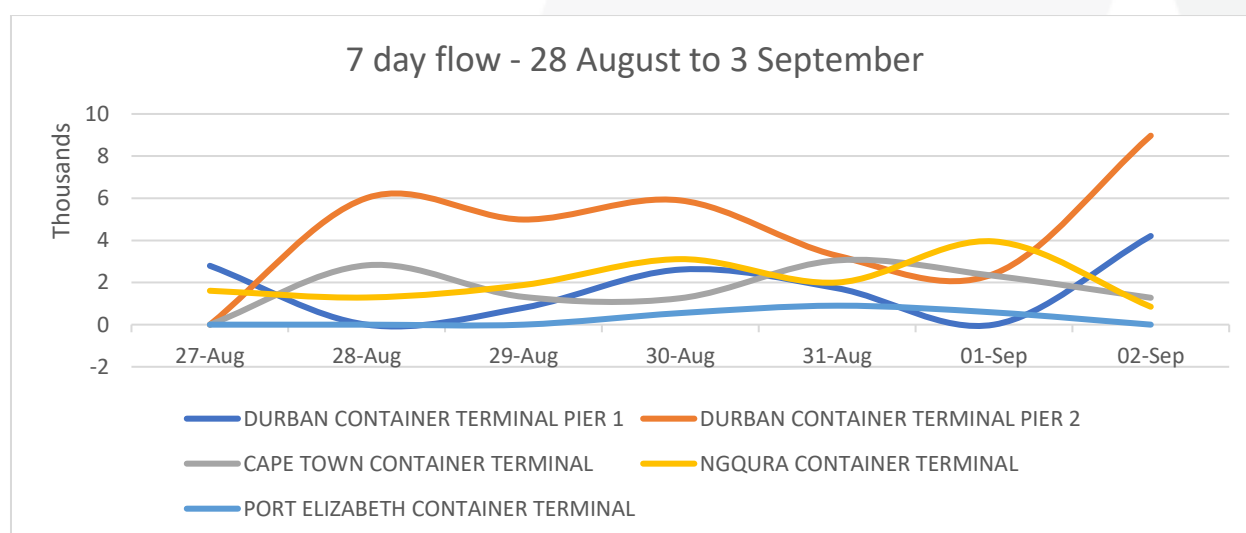
The figures below show the weekly container flows for the last 7 days, as well as projections for the next 7 days.

Figure 3 - 7-day flow forecast for total cargo movement (21 August to 27 August; day-on-day)



Source: Calculated using data from [Transnet Port Terminal](#), updated 28/08/2020.

Figure 4 - 7-day flow forecast for total cargo movement (28 August to 3 September; day-on-day)



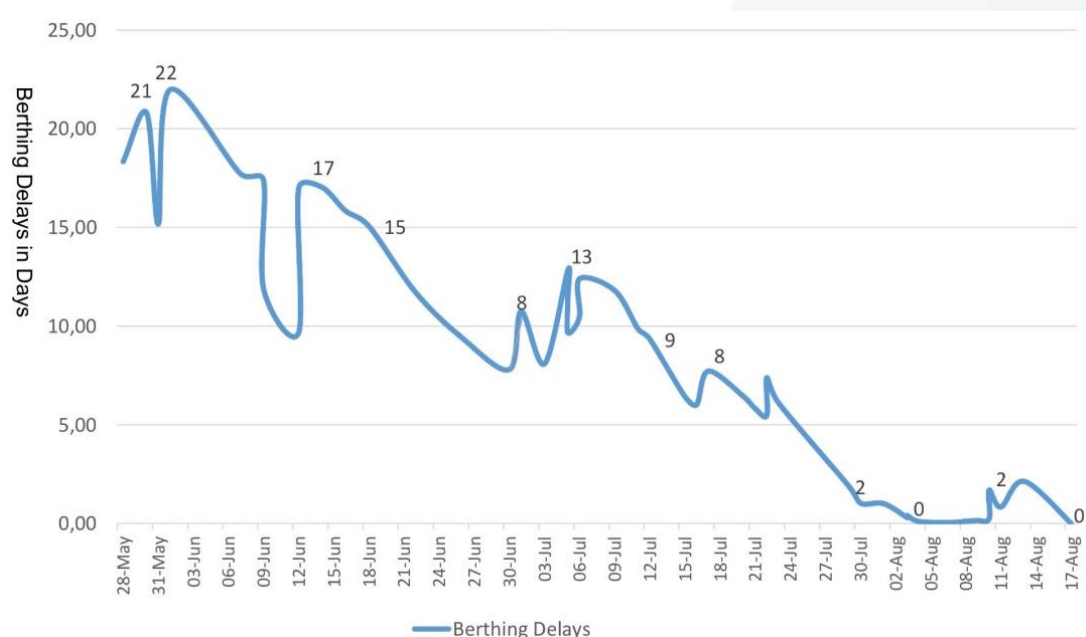
Source: Calculated using data from [Transnet Port Terminal](#), updated 21/08/2020.

Summary of port statistics

An average of **~9 983 TEUs** were handled per day over the course of the last week (21 - 27 Aug - Table 2), with an increased average of around **~10 350 TEUs** expected to be handled over the course of the next week (28 Aug - 3 Sept Table 3). These figures can be compared to an average of **~9 715 TEUs** handled per day in the previous report (21 August), which further highlights the recent positive trends experienced by the industry. Overall, containerised cargo volumes are **~90%** compared to the same time the previous year, but up by nearly **10%** when comparing month on month.

Current stack capacities at our major ports are hovering around approximately **75%** and **50%** in Durban and Cape Town respectively. In terms of operations at the Port of Cape Town, efficiency once again continues to improve. The following figure attests to this:

Figure 5 - Cape Town Terminal berth delays since 28 May



Source: Rico Basson, [Vinpro](#)

The sustained operational improvement is undoubtedly a step in the right direction which will aid with overall economic recovery.

Air Update

- International air cargo

The following table depicts the inbound and outbound air cargo flows to and from ORTIA in the last week. For comparative purposes, the average air freight cargo (inbound and outbound) handled at ORTIA in the two months before the lockdown period (January and February) was approximately **743 879 kg per day**⁷. The volumes depicted in the table are also in kilograms.

Table 4 - International inbound and outbound cargo from OR Tambo

Flows	21-Aug	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug
Volume inbound	245 869	193 475	379 142	393 309	156 251	337 385	225 693
Volume outbound	116 189	138 142	264 177	172 613	146 355	147 273	222 319
Total handled per day	362 058	331 617	643 319	565 922	302 606	484 658	448 012

Updated: 29/08/2020

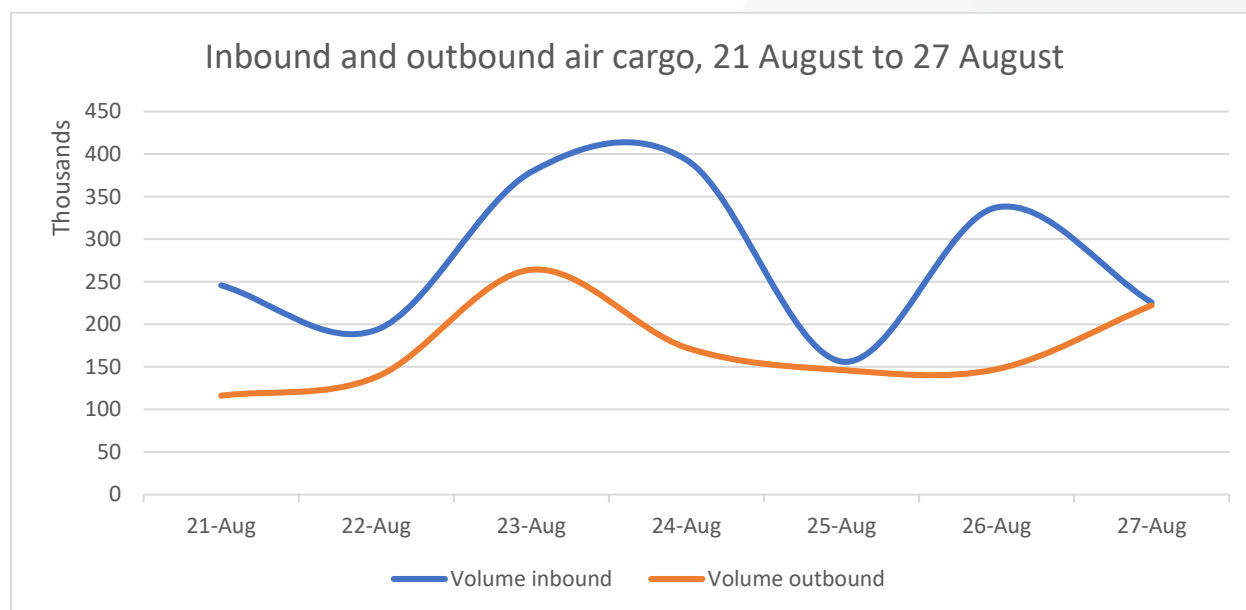
The average volume of air cargo handled at ORTIA over the seven days starting 21 August amounted to **275 875 kg** inbound and **172 438 kg** outbound, resulting in an average of **448 313 kg** per day, which is approximately **60%** compared to the two months before the lockdown period.

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⁷ Note, when including statistics from South Africa's other two international airports, Cape Town International and King Shaka (Durban) International airports, the total figure rises to **916 175 kg** per day.

The following figure is a visual representation derived from *Table 4*, illustrating how the volumes of air cargo have fluctuated over the course of the last seven days.

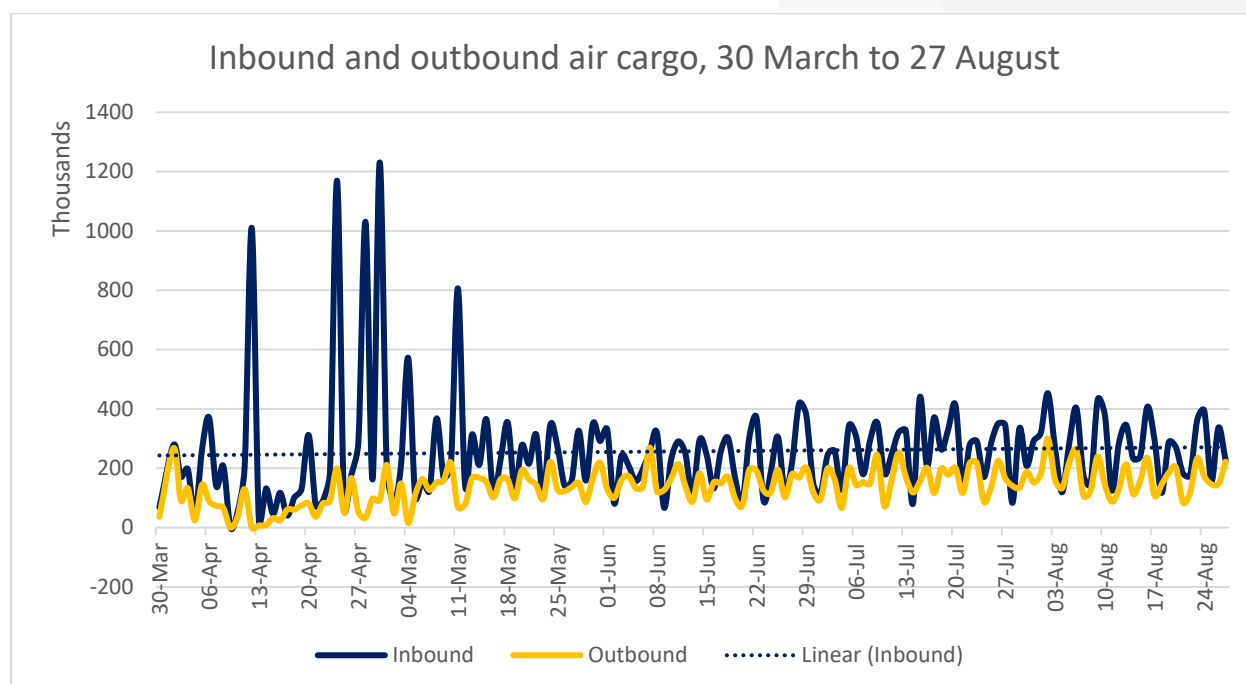
Figure 6 - 7-day cargo flow for OR Tambo



Updated: 29/08/2020

The following figure shows the long-term average of international air cargo flows to and from ORTIA since 30 March. After the initial spike in volumes in late April and early May, mainly caused by bulk imports of PPE, weekly flows, although fluctuating from day to day, have settled into a reasonably consistent average.

Figure 7 - Daily cargo flow for OR Tambo



Updated: 29/08/2020

The following table depicts the origin and destination of air cargo moved to and from ORTIA. Note that the origin shown is the source of the flight, not necessarily the source of the load. The cargo originates around the world and then moves here via the hubs of the major airlines, i.e. Doha (Qatar), Dubai (Emirates), Istanbul (Turkish), and London (British), etc. Indications are that the bulk of the arriving cargo originates in the Far East, since there are virtually no passenger flights, and only chartered flights and scheduled cargo flights are arriving. Consistently high volumes between ORTIA and Nairobi are noteworthy and can be explained by the opportunities arising out of the fresh flower export trade from Kenya to Europe.

Table 5 - Total international cargo movement to and from OR Tambo

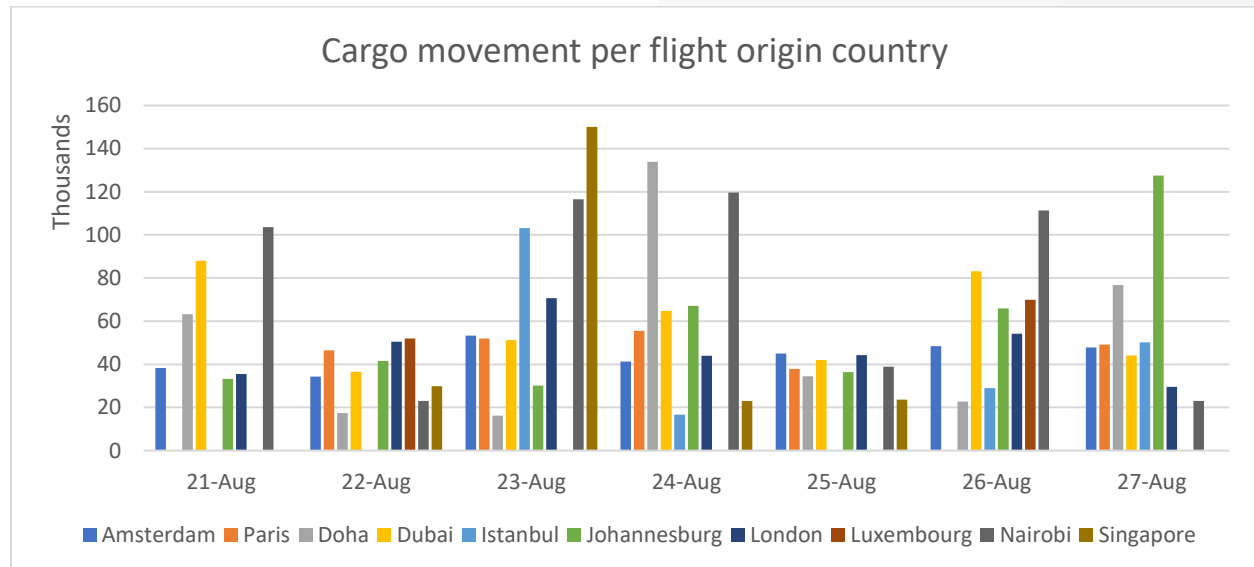
Partner	21-Aug	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug
Amsterdam	38 371	34 345	53 293	41 289	45 038	48 454	47 760
Paris	-	46 426	51 939	55 587	37 896	-	49 118
Doha	63 219	17 360	16 245	133 865	34 459	22 729	76 749
Dubai	87 966	36 494	51 233	64 795	42 070	83 067	44 066
Istanbul	-	-	103 113	16 633	-	29 004	50 194
Johannesburg	33 344	41 650	30 209	67 121	36 341	65 981	127 460
London	35 533	50 472	70 741	43 938	44 189	54 160	29 591
Luxembourg	-	52 009	-	-	-	69 877	-
Nairobi	103 625	23 062	116 503	119 687	38 934	111 386	23 074
Singapore	-	29 799	150 043	23 007	23 679	-	-
Total handled:	362 058	331 617	643 319	565 922	302 606	484 658	448 012

Updated: 29/08/2020

When comparing the origin and destination of air cargo moved to and from ORTIA over the course of the last couple of months, it is evident that our trading partners have mainly remained the same. The significant omission is Addis Ababa and Ethiopian Airways, which accounted for a large portion of the air cargo during the early days of lockdown when bulk imports of PPE from China were in full swing, and even passenger aircraft were being used on a charter basis.

The following figure, a graphic representation of *Table 8*, shows the diversity of South Africa's trading partners in terms of cargo handled per country of origin. Overall, international freight has increased by ~4% compared to last week.

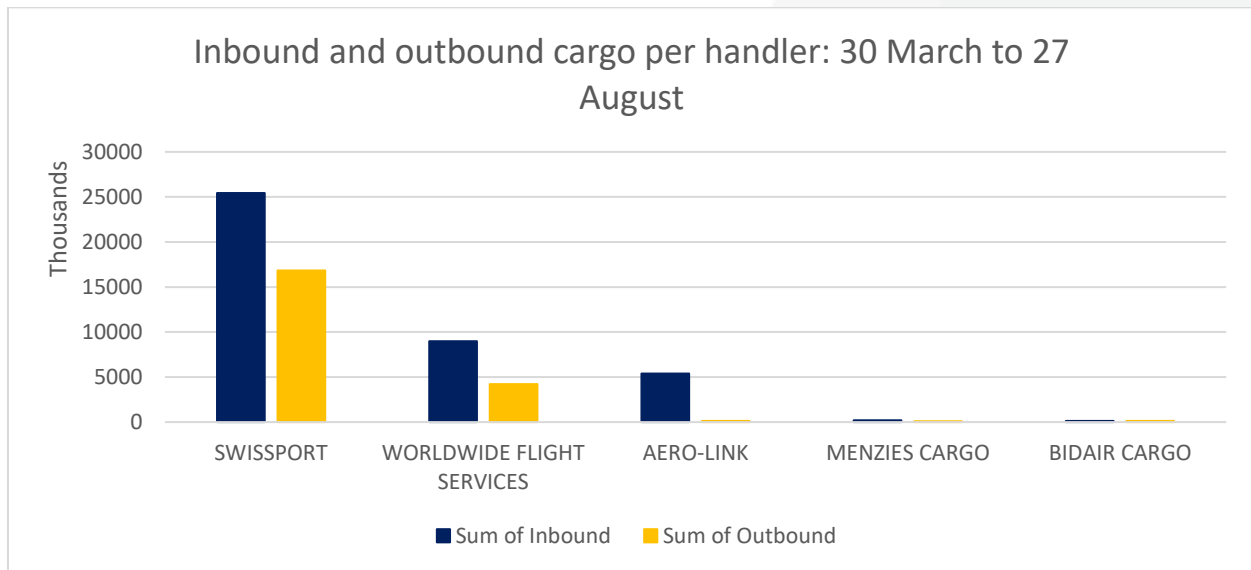
Figure 8 - Total cargo movement between OR Tambo and trading partners



Updated: 29/08/2020

The next figure illustrates the cargo moved per ground handling agent since the start of the lockdown period, with Swissport handling the bulk of the international freight to and from ORTIA.

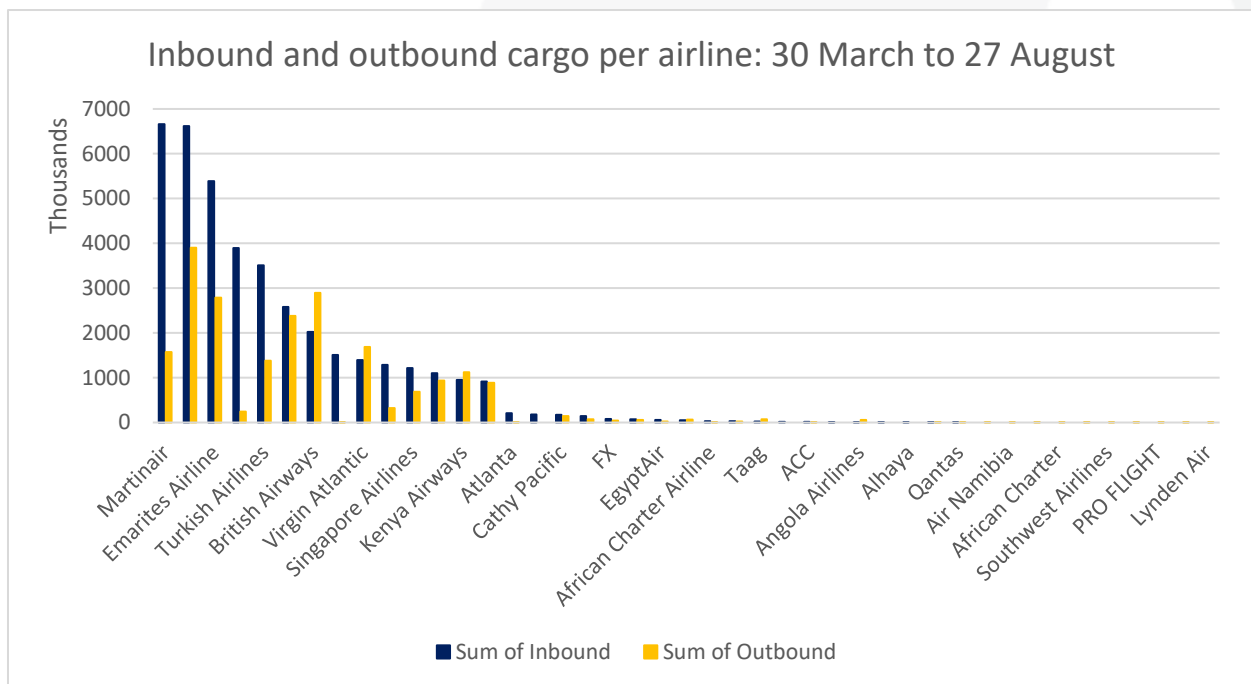
Figure 9 - Cargo movement during the lockdown, per handler



Updated: 29/08/2020

The following figure illustrates the cargo moved per airline since the start of the lockdown period, with Qatar, Martinair, Emirates, and Ethiopian accounting for the vast majority of the international freight to and from ORTIA.

Figure 10 - Cargo movement during the lockdown, per airline

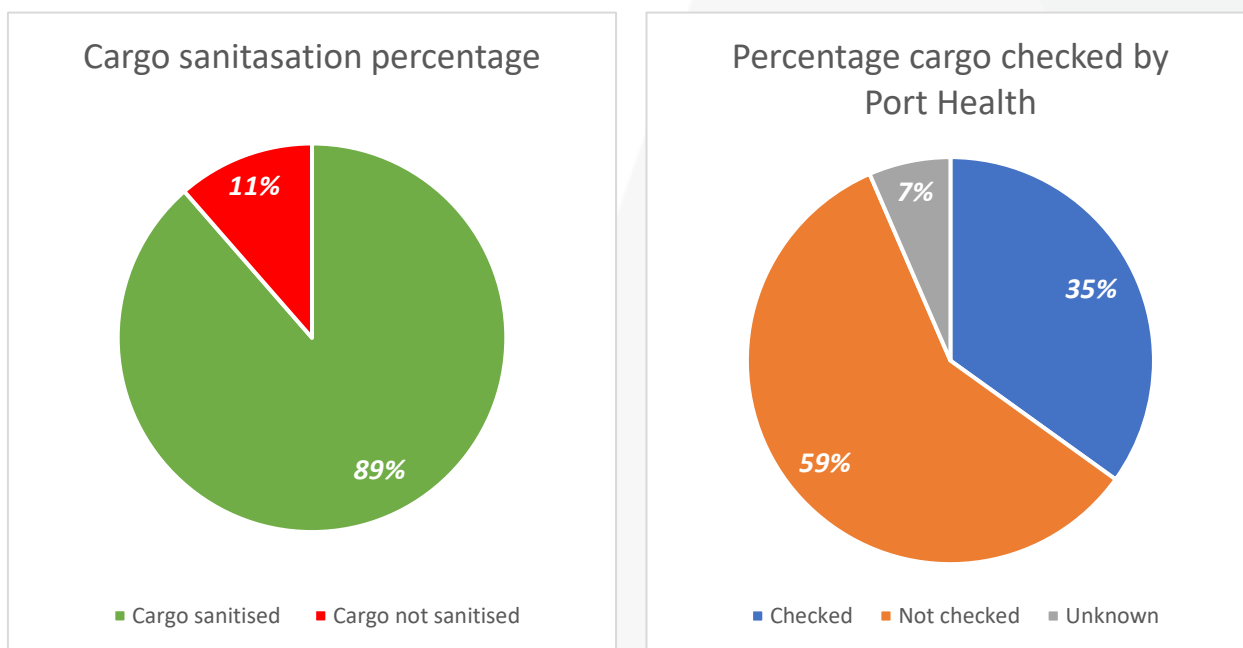


Updated: 29/08/2020

We are underlining the fact that most international air cargo has been channelled to ORTIA during the lockdown period, with very little cargo consigned to or from Durban and Cape Town. The onward movement of cargo from ORTIA to the coastal cities (primarily by road) adds to both cost and transit time, as well as creating a need for in-bond clearances with Customs which has also presented some obstacles.

The figure below illustrates the percentage of cargo sanitised, as well as the portion of cargo checked by Port Health.

Figure 11 - Air cargo sanitation process



Updated: 29/08/2020

Domestic air cargo

The following table shows the domestic inbound and outbound air cargo flows for the duration of the lockdown period, as captured by industry. The table comprises the main domestic hubs, with a summary for the other airports. For comparative purposes, the average domestic air freight cargo (inbound and outbound) for ORTIA handled *before* the lockdown period was approximately **75 000 - 90 000 kg per day** (calculated from industry feedback). The volumes depicted in the table are also in kilograms.

Table 6 - Total domestic cargo movement

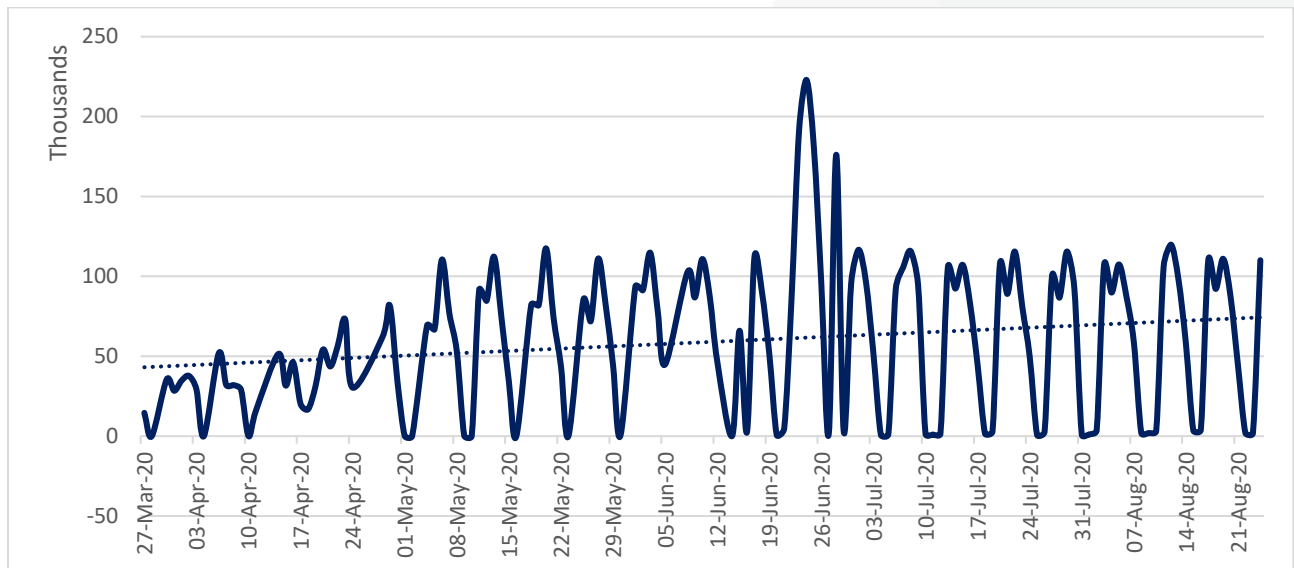
DATE / AIRPORT	CPT	DUR	ELS	JNB	PLZ	OTHERS	TOTAL
March Average	8 581	823	1 728	4 020	2 912	1 555	19 619
April Average	14 664	900	2 152	13 911	3 814	1 760	35 956
May Average	28 421	1 639	4 677	25 282	7 333	1 099	58 064
June Average	24 256	2 137	5 105	23 935	8 601	3 324	63 236
July Average	23 395	2 759	4 896	24 255	6 550	5 139	63 116
01-Aug-20	279	126	-	595	14	134	1 148

02-Aug-20	1 128	1 153	-	1 067	94	127	3 568
03-Aug-20	44 320	4 253	6 176	36 502	10 178	5 670	107 099
04-Aug-20	37 471	4 136	6 120	26 497	10 199	5 392	89 814
05-Aug-20	35 447	4 364	5 598	47 437	9 782	4 843	107 470
06-Aug-20	35 287	4 154	5 086	27 806	10 249	4 833	87 415
07-Aug-20	15 844	1 234	2 222	31 645	4 953	2 786	58 683
08-Aug-20	264	250	5	1 144	20	242	1 924
09-Aug-20	1 250	43	22	293	34	386	2 027
10-Aug-20	974	606	13	943	355	289	3 179
11-Aug-20	47 285	4 140	6 345	31 730	10 627	5 944	106 071
12-Aug-20	34 617	4 433	6 370	58 218	11 600	4 615	119 854
13-Aug-20	43 909	4 063	5 633	32 156	8 653	0	97 909
14-Aug-20	19 842	970	2 997	25 532	5 140	3 291	57 772
15-Aug-20	1 840	473	-	910	17	134	3 372
16-Aug-20	2 135	541	-	616	202	363	3 857
17-Aug-20	47 596	4 175	5 996	38 875	8 421	4 916	109 980
18-Aug-20	37 725	3 228	6 263	30 279	9 911	4 704	92 109
19-Aug-20	35 594	3 957	6 640	49 819	11 133	3 837	110 978
20-Aug-20	35 610	3 480	6 545	29 447	7 747	4 307	87 135
21-Aug-20	13 448	1 111	4 195	16 109	5 749	3 323	43 935
22-Aug-20	584	432	5	383	34	327	1 764
23-Aug-20	695	296	2	513	310	21	1 836
24-Aug-20	45 779	4 479	6 954	38 526	10 279	4 068	110 085
Grand Total	3 128 026	291 449	484 808	3 027 588	798 755	610 299	8 145 139

Updated: 25/08/2020

The following figure is an illustration of the total air cargo moved per day as per the table above:

Figure 12 - Total domestic air cargo since lockdown commenced



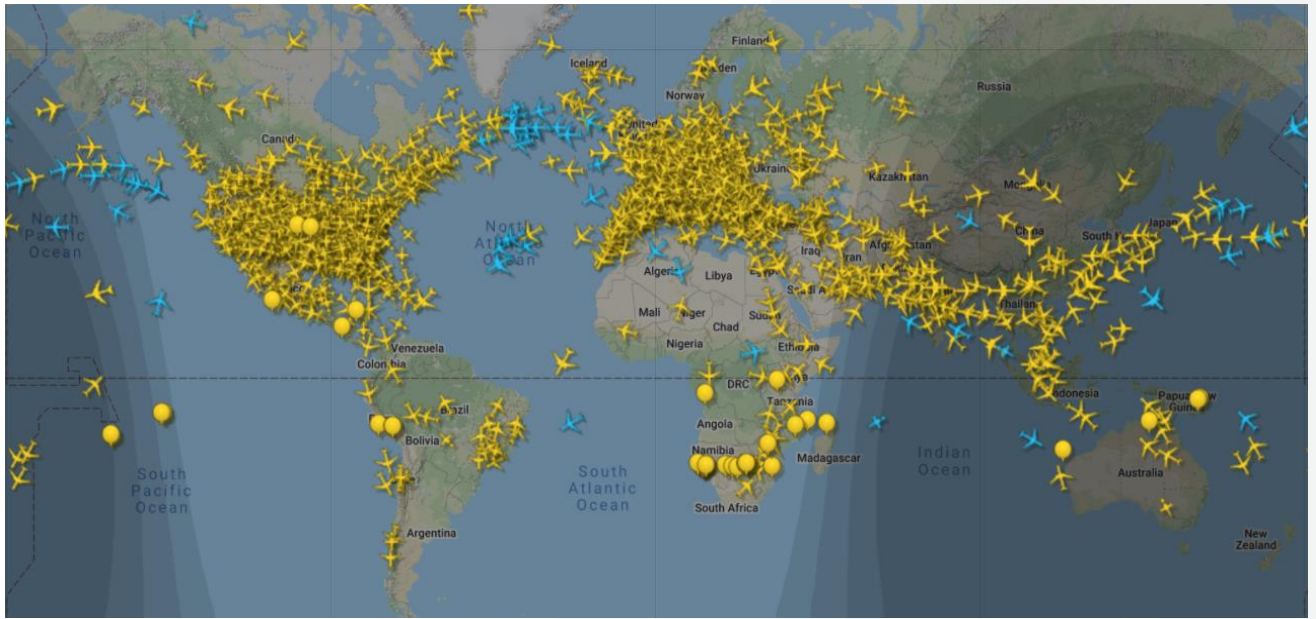
Updated: 25/08/2020

The average domestic air cargo moved during the lockdown period has amounted to **~61 500 kg per day**, which constitutes approximately **68%** of the volume moved pre-lockdown, and this reflects the current situation as experienced by the industry. On a more positive note, however, has been the fact that the daily flow of goods has continued to increase steadily as the trend line in the figure above illustrates.

Global air cargo traffic

The following air traffic image displays the current pattern of air traffic globally, providing a snapshot around mid-afternoon of 28 August.

Figure 13 - Global air traffic: 28 August 2020



Source: [FlightRadar24](https://www.flightradar24.com), 28/08/2020, 17:00

The image continues to highlight the lack of activity in African airspace, although this traffic has increased dramatically compared to the early days of lockdown. The numbers of aircraft currently moving across African airspace has increased. Still, as can be seen in the statistics provided in the previous section, the amounts are not yet up to normal ranges, as the following image will show.

South African air traffic

The next image displays the current pattern of air traffic in Southern Africa, providing a snapshot around mid-afternoon on 28 August.

Figure 14 - Southern African air traffic: 28 August 2020



Source: [FlightRadar24](https://www.flightradar24.com), 28/08/2020, 17:00

Although domestic air cargo volumes have stagnated somewhat in recent weeks, it remains encouraging to witness from the figure that the number of aircraft travelling on South Africa's busiest aviation route — Johannesburg/Cape Town — has continued to increase in recent weeks.

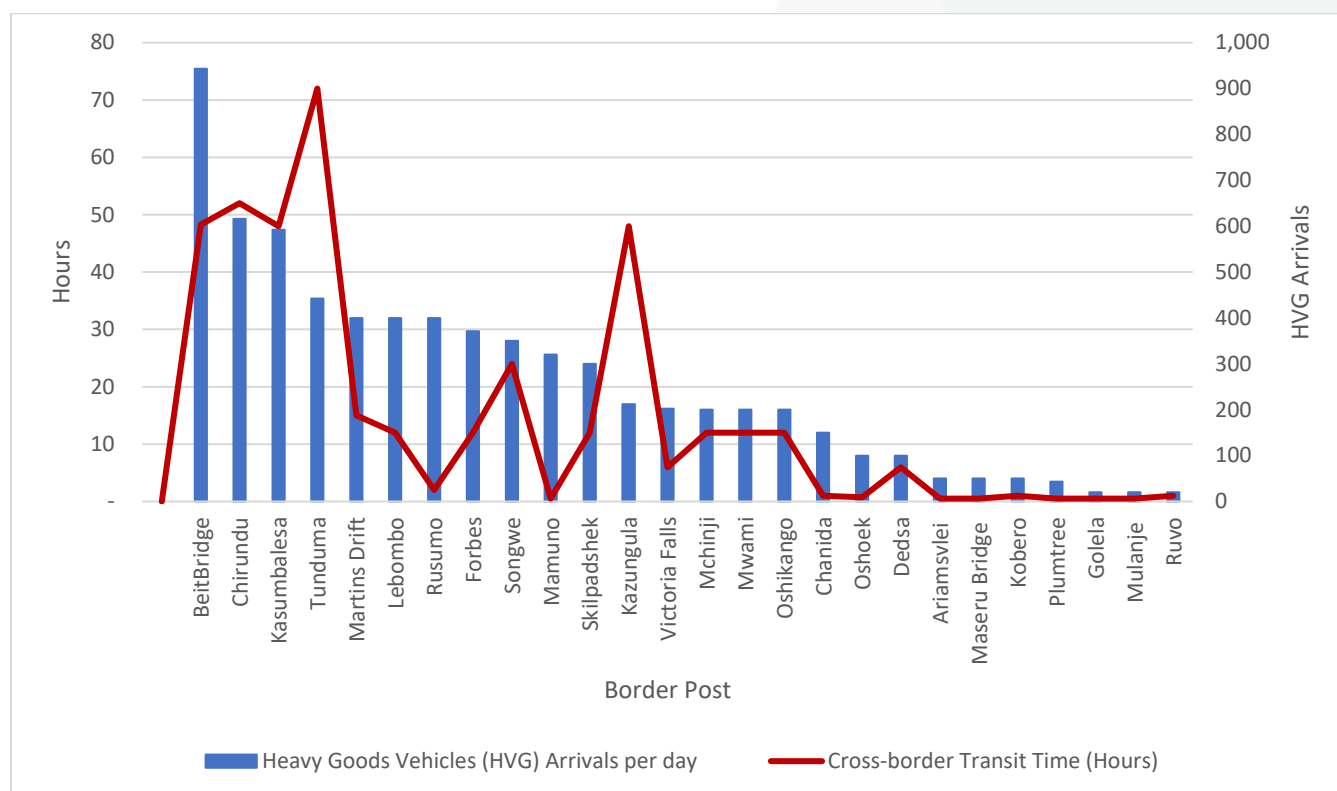
Regional update

a. SADC Border operations

On a regional road freight note, a recent study investigated SADC border operations. The following graphs illustrate the trade flows (and accompanying delays experienced) in the SADC region. The research utilised data from NPA, TLC and FESARTA.

The first graph depicts cross-border transit times, as well as the number of heavy-goods vehicles arriving at each border post.

Figure 15 - SADC border posts: arrivals and average crossing time

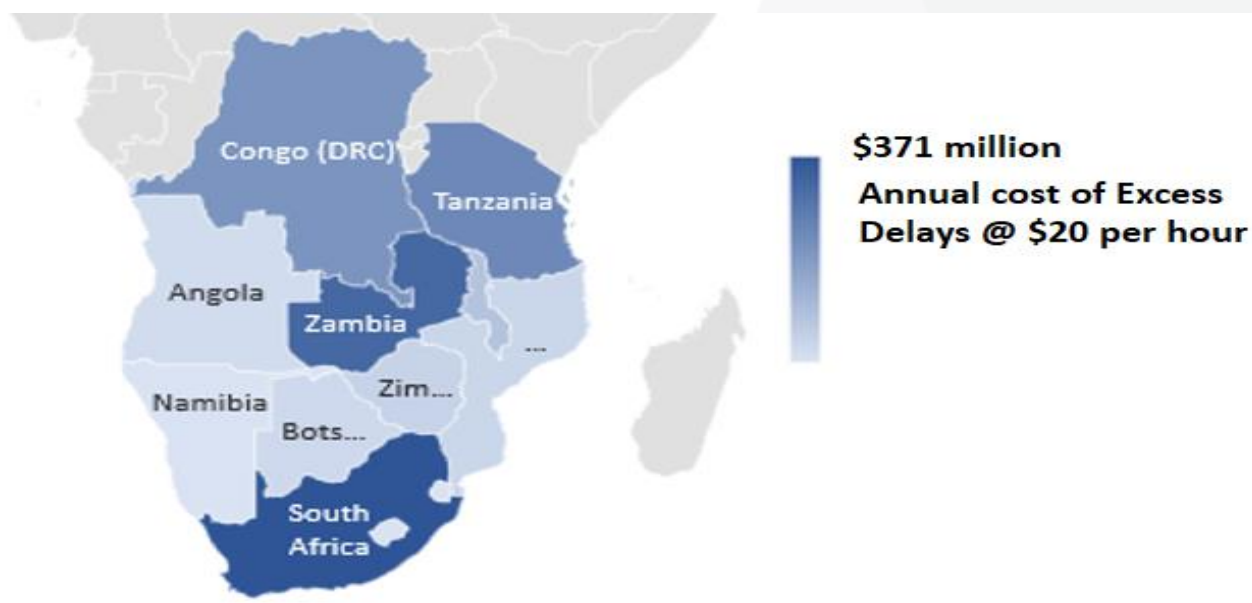


Source: NPA, TLC & FESARTA

Evident from this graph is the fact that the busiest border posts are also the crossings which generally take the longest time to complete. The most active SADC border posts continue to be Beitbridge, Chirundu, Kasumbalesa and Tunduma, respectively. These four border posts also have the longest average cross-border transit time, with Kasumbalesa taking the longest at an average of 72 hours. Kazungula — not as busy as some of the other border posts — also takes a significant amount of time to cross, at 48 hours.

It has become very much apparent that streamlining the border procedures will save high costs. Based on the assumption that each hour's delay costs \$20, an astounding \$327 million can annually be saved at Beitbridge alone. The following illustration provides an indication of the potential cost due to cross-border delays per country.

Figure 16 - Projected annual cost per country (@ \$20 per hour delay)



Source: Powered by Bing; compiled with statistics generated from NPA, TLC & FESARTA

The SADC region serves to gain immensely from streamlined processes at the various borders. Projected annual cost due to border delays are worst in South Africa (~\$371 million) and Zambia (~\$321 million), followed by Tanzania (~\$235 million) and the DRC (~\$205 million). Only a co-ordinated regional approach to the problem will assist in resolving it, and it must be said that recent announcements from the ZRA in Zambia around testing of drivers will only exacerbate the problem.

1. International update

The following section provides context as to the health of the global economy and the impact of COVID-19.

a. WTO

On 27 August, the World Trade Organisation released a new report regarding *the impact of COVID-19 on agricultural trade*⁸, noting how agricultural trade has fared better than other sectors. Furthermore, the report notes how the initial global measures focused on guaranteeing the immediate availability of food.

The following points are critical to the analyses in the WTO's report:

- While overall merchandise trade fell sharply in the first half of 2020, agricultural and food exports increased by 2.5% year-on-year.
- World food stocks and production levels for the most widely consumed staples — rice, wheat and maize — are at or near all-time highs. On the other hand, non-food agricultural products such as raw fur skins, wool or flowers dropped dramatically.
- Despite this, the COVID-19 pandemic's impact on jobs and income has increased the number of food insecure people worldwide.
- Effects have varied across regions. Asia saw its agricultural exports decline in March 2020, followed by Europe and North America in April. However some areas have seen exports increase compared to the same period in 2019, with the most significant increases in South America, driven by Asian demand for the region's exports of products such as soybeans, sugar and meat.

⁸ WTO. 27 August. https://www.wto.org/english/news_e/news20_e/agri_27aug20_e.htm

Container industry at a glance

International freight rates have once more increased over the course of the last week, according to the "World Container Index" (WCI) as published by Drewry, the UK-based Maritime research and consulting firm⁹. The current global average freight rate currently stands at **\$2,250.63** per 40ft container. The WCI has therefore increased by **3.4%** since the previous week (20 August 2020).

Drewry provides the following reasons for this continued upward trend in rates:

- The average composite index of the WCI, assessed by Drewry for year-to-date, is \$1,741 per 40ft container, which is an incredible \$325 higher than the five-year average of \$1,417 per 40ft container.
- Overall, the WCI is up by 59.9% compared to the same time last year.
- Spot rates from Shanghai to Genoa soared 9% or \$182 and stood at \$2,123 per 40ft container.
- Similarly, spot rates from Shanghai to Rotterdam, Shanghai to Los Angeles, and Shanghai to New York all increased 3%

The following table consolidates the monthly and annual changes for the eight major East-West trades.

Table 7 - World container index per route - Assessed by Drewry (\$ per 40' container)

Route	13-Aug-20	20-Aug-20	27-Aug-20	Weekly change (%)	Annual change (%)
Composite Index	\$2,089	\$2,177	\$2,251	3% ▲	60% ▲
Shanghai - Rotterdam	\$1,805	\$1,870	\$1,922	3% ▲	24% ▲
Rotterdam - Shanghai	\$1,297	\$1,222	\$1,187	-3% ▼	106% ▲
Shanghai - Genoa	\$1,982	\$1,941	\$2,123	9% ▲	8% ▲
Shanghai - Los Angeles	\$3,208	\$3,390	\$3,508	3% ▲	155% ▲
Los Angeles - Shanghai	\$518	\$518	\$518	0%	25% ▲
Shanghai - New York	\$3,521	\$3,910	\$4,041	3% ▲	61% ▲
New York - Rotterdam	\$561	\$552	\$551	0%	3% ▲
Rotterdam - New York	\$2,202	\$2,449	\$2,449	0%	4% ▲

Source: [Drewry Ports and Terminal insights](#)

International Air Transport Association

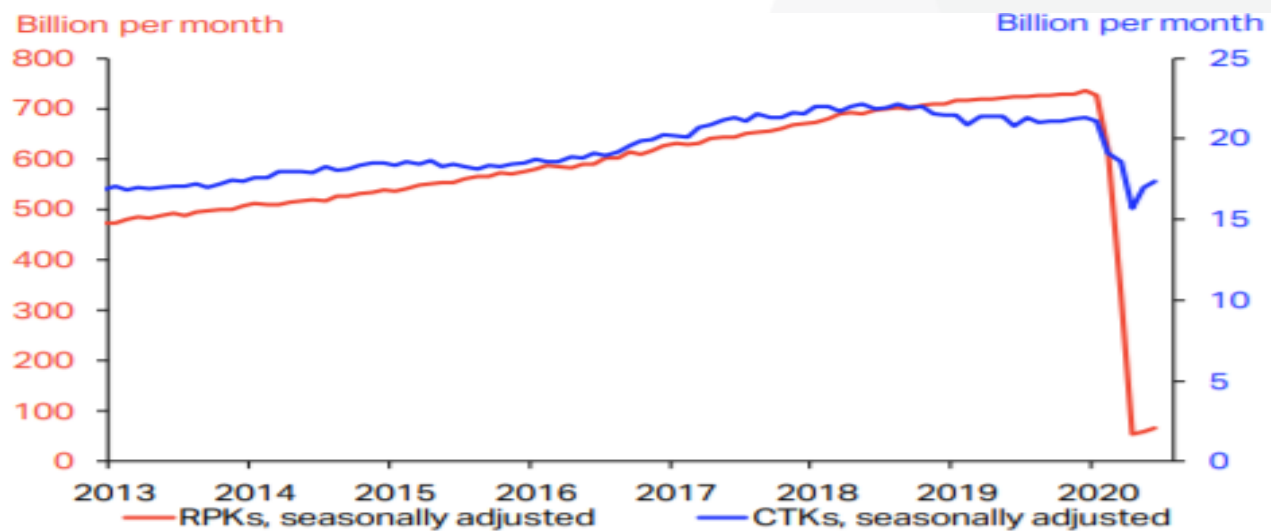
In the recently published 'IATA Airlines Financial Monitor: June/July'¹⁰ IATA notes that the airline industry had its worst quarterly financial performance ever in Q2 2020. Nonetheless, in June, both passenger and cargo demand continued to recover from the low point in April as countries ease lockdown measures. However, the pace of recovery in passenger demand lagged the improvement in seat capacity. Looking forward, restarting the network to respond to weak and varying travel demand patterns will be a challenge for airlines. The following figure showcases the global passenger and cargo demand:

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⁹ Drewry Supply Chain Advisors, World Container Index. <https://www.drewry.co.uk/logistics-executive-briefing/logistics-executive-briefing-articles/world-container-index-detailed-assessment>

¹⁰ IATA [Financial Monitor](#), June/July 2020.

Figure 17 - Air passenger and air cargo volumes (2013 - 2020)



Source: IATA

From the figure, IATA notes the following vital points:

- Air travel demand continues to show slight signs of recovery.
- Passenger volumes contracted by 86.5% in June, compared to 91% in May and ~94% in April.
- Air cargo demand continues to increase for the month of June, albeit at a relatively slow pace.
- Cargo tonne-kilometres (CTGs) picked up by 2.2% month-on-month compared to May.
- In annual terms, CTGs were down by 17.6% versus 20.1% in the previous month.

Conclusion

This update — *the sixth of its kind* — contains a consolidated overview of the South African supply chain, as well as the current state of trade internationally. Concerning COVID-19 infections, the number of reported new cases in South Africa fell to an average of **3,350** a day in the week to 23 August. This figure is in comparison with a peak of over **12,000** in mid-July. In response, the government relaxed restrictions to Level 2 from Tuesday, 18 August¹¹. In global terms, South Africa dropped to 6th position globally (with Peru overtaking South Africa in the past week) with almost **620,000** total cases¹² recorded at the time of writing.

For the ocean modality, container volumes have once again marginally increased compared to those recorded last week, with an average of **~9 983 TEUs** handled daily over the course of the previous seven days, with an enlarged average of around **~10 350 TEUs** expected over the course of the next week. Export cargo continues to outstrip import cargo, which is a positive sign for our local industry and continues to fuel the recent positive trade balance. Overall, containerised cargo volumes are **~90%** compared to the same time the previous year, but up by nearly **10%** when comparing month on month.

Current stack occupancy at our major ports is hovering around approximately **75%** and **50%** in Durban and Cape Town respectively. In terms of operations at the Port of Cape Town, efficiency once again continues to improve. It now seems that berth delays are a feature of the past. It should be noted that stack occupancy of over 65% can be an early sign of congestion, so the Durban figure gives some cause for concern

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¹¹ TIPS Tracker: the economy and the pandemic 10 August – 23 August 2020

¹² John Hopkins, Coronavirus Resource Centre. <https://coronavirus.jhu.edu/map.html>

Concerning international air cargo flowing to South Africa, the average daily volume of air cargo handled at ORTIA over the seven days have increased by **~4%** compared to last week. The period beginning 21 August saw daily volumes of **275 875 kg** inbound and **172 438 kg** outbound, resulting in a daily average of **448 313 kg**, which is approximately **60%** compared to the two months before the lockdown period. These air cargo figures once again highlight the sustained negative impact of the pandemic on the global air cargo industry, which *Figure 19* above clearly illustrates. In summary, IATA notes the second quarter of 2020 as being the worst quarterly financial performance ever. In terms of domestic air cargo, volumes have remained constant at around **68%** of the capacity compared to the volume moved pre-lockdown.

Internationally, global agricultural trade has fared better than other sectors, with farming and food exports increasing by **2.5%** year-on-year. These figures are in contrast to international merchandise trade, which has declined by **18.5%** for Q2, with the automotive and air freight industries hit the hardest, followed by container shipping. Average freight rates also continue their recent record run, currently at **\$2,250.63** per 40'.

In broad terms, the available evidence indicates that the economic recovery remains slow. Nonetheless, the South African supply chain and its related industries have maintained its slight recovery since the start of *Risk-Adjusted Strategy* Level 2. Despite the slight recovery, South Africa is — as always — very dependent on global developments. This dependence is especially true in terms of the security of the supply chain.