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Banding Together Against COVID-19 - Air Canada Completes Record-breaking Cargo-only Journey



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The global airline industry faced a severe drop in traffic and demand when the coronavirus (COVID-19) outbreak caused many countries around the world, including Canada and the U.S., to impose travel restrictions. Air Canada's passenger service was reduced by 90 per cent in response to this unprecedented impact. On the other hand, Air Canada Cargo experienced a notable uptick in cargo demand for personal protection equipment (PPE) such as face masks and other supplies for front-line medical responders.

From a musician transporting instruments to their next gig to the Government of Canada working with a freight forwarder to import honeybees, cargo shipping through Air Canada Cargo is still possible. The division markets the excess passenger aircraft belly space to those who need to move time-sensitive cargo shipments by air. Following the disruption that COVID-19 caused on the airline industry, Air Canada expanded its cargo business to help support the Canadian and global supply chain. It reconfigured three of the largest aircraft, Boeing 777-300ERs, by removing 422 seats in the cabin and installing cargo restraints to transport cargo in the passenger cabin.

In five days, the company doubled the cargo capacity of these aircraft. Air Canada and Air Canada Cargo then moved into position to transport critical medical and other vital supplies to Canada.

And on April 18, Air Canada Boeing 777 Captain Kelly Shaw operated a historic flight: AC2284—the airline's first cargo-only flight in 30 years, operated by the first transformed aircraft.

"It was certainly unusual not to see our flight attendant colleagues and customers on board. The aircraft's payload included about 30 tonnes worth of goods, of which 15 tonnes (14,000 kg) was secured in the upper cabin. The First Officer, Andre Fast, and I walked through the cabin to complete pre-flight checks," said Captain Shaw.

Whether flying passengers or cargo, weight and balance are critical flight planning considerations that impact route planning, fuel burn, and takeoff and landing speeds. Dedicated teams in several specialized, technical areas support pilots for every flight, including cargo-only flights, by making calculations using complex software that considers independent variables such as weather, wind speeds and cargo weight.

Daily briefing calls and multi-time-zone meetings took place to manage the specialized operations to transport cargo from Asia to Canada. Tokyo-Narita was used as a central point for the Asia cargo missions as it fulfilled two important operational considerations: an efficient hub to run shuttle flights to and from Shanghai, where time slots to pick up cargo was very limited, and a layover destination for crews.

Critical for the new missions with the converted Boeing 777s are teams of Aircraft Maintenance Engineers (AME) who are

specially trained as loadmasters who ensure the cargo is loaded and secured safely and according to customized plans. The cargo in the upper cabin must be placed in 36 positions, each with unique weight, shape and height limitations, according to cabin weight and balance requirements.

"The plan for the historic flight on April 18th was to fly for about four hours from Tokyo to Shanghai, where the airline was granted a short window to retrieve cargo, then fly back to Tokyo for a crew change and onwards to Canada," said Captain Shaw. "We were accompanied by Christopher and Francesc, who were the loadmasters on the first cargo-only flight."

AMEs based in Toronto, each with more than 20 years of experience, and licensed to work on various aircraft, Francesc Sagues-Muizelaar and Christopher Ernest raised their hands to be trained as loadmasters at the beginning of April 2020.

"There is never a dull moment in my life at work," said Ernest. "On a normal day, we receive the airplane, debrief the flight crew on the headset and complete the exterior and interior checks. If there are any problems, we fix them. Because problems crop up unexpectedly sometimes, we must know what to do on the spur of the moment."

With their AME credentials and technical knowledge, they became experts in safely loading cargo-only flights in just two weeks.

"Never in my wildest dreams would I have imagined that I'd be flying all the way to China, in the middle of a pandemic, to pick up medical supplies," remarked Sagues-Muizelaar. "We were ready and excited for the mission and we had a pretty good idea on how the day would unfold. But we realized that our problem-solving skills would be put to use very quickly."

"Once we were at the loading belt, everything began smoothly. One of us monitored the boxes and checked the labels for weight and flammable materials. The other assigned what zones to place the boxes in."

The first hour was straightforward, and loading was going according to plan because every box was the same size and weight. The plan became complicated once different-sized boxes and boxes with no labels began to arrive.

Sagues-Muizelaar continued: "We had to stop several times to make sure that what was getting loaded was acceptable for safe flying. As incoming boxes started to change in size, we realized that some would not fit in their designated areas, which required us to place them in other areas, creating delays. There were also boxes that did not match our calculations and more delays became inevitable."

The pressure to move quickly was on.

As the minutes ticked by and the pilots' regulated duty day limits approached, the need for everyone to collectively put forward their best effort to identify the missing boxes and balance calculations intensified.

Geared in hazmat suits, face masks and gloves, Ernest and Sagues-Muizelaar finished loading boxes of masks, gloves and gowns with the help of roller carpets to get items to their designated areas. Every zone was marked and labelled with a maximum weight for quick identification. Once a zone was filled, it was checked, netted and secured to the floor.

Finally the crew departed Shanghai to return to Tokyo-Narita after almost five hours on the ground. During the return leg, the loadmasters monitored the payload every 30 minutes for any boxes shifting or for any safety hazards.

Like a line change on the fly during an important playoff game, on arrival in Tokyo, the crew deplaned for their layover rest and

another team of pilots and loadmasters who had just completed their layover was deployed to finish the final leg of the mission, bringing the aircraft back to Canada.

"It is a great honour to be part of this team and contribute in the effort to bring PPE to medical staff. I will look back one day after this pandemic is over and remember how Air Canada came to the rescue and became a leader in this fight," said Sagues-Muizelaar.

Captain Shaw shared a similar experience. "There are many people behind the scenes involved in bringing supplies to the front line and it's a real testament to what the company can do," he said. "It didn't hit a nerve until I saw the word 'face mask' written on the box and it was then when I realized what an important contribution Air Canada was making for front-line workers."

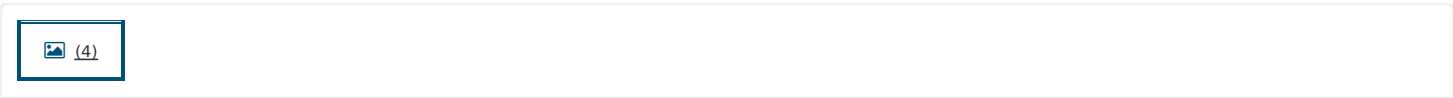
Air Canada is currently operating, on average, 20 cargo-only flights internationally per day, transporting critical PPE to Canada, in addition to transporting other vital supplies and necessary goods to support the economy in Canada and globally.

Additionally, one of Air Canada's cargo flights operated one of the longest direct flights in the airline's history. The Boeing 787-9 Dreamliner started its cargo-only journey, leaving from Toronto Pearson with a stop at Los Angeles airport before travelling to Sydney, Australia. The record-breaking leg began April 26 with the take-off of AC7214 from Australia on a non-stop return to Toronto.

During that trip home, the aircraft covered nearly 15,800 kilometres (9,800 miles) and was in the air for nearly 16.5 hours. The cargo holds contained more than 17,800 kilos of pharmaceuticals, electronics, and drilling parts, as well as three pallets of chilled beef heading to Canadian supermarkets.

Air Canada Express partner Jazz has recently converted some Dash 8-400 aircraft so it can operate cargo-only flights to regional communities across Canada to help transport essential supplies to regional communities.

The nimble transformation of aircraft assets together with global operational expertise means Air Canada can be counted on during extraordinary times to serve as a vital link in global supply chains to help transport much-needed medical supplies and other important goods to and from Canada to help keep the world economy moving.



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A STAR ALLIANCE MEMBER

