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Transporting Hummingbirds

(Not on the Wings of a Goose!)



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speaker notes in italics

abstract:

Transporting delicate avian species such as hummingbirds across country can be successful with detailed planning. San Diego Zoo has transported hummingbirds successfully from Miami to San Diego by air. Our steps for shipment planning, including species specific crate design, sending crates, feeders and food ahead of the shipment, building a relationship with the quarantine facility and acclimating the birds for shipment will be discussed. The importance of having an advocate for the birds during shipment, and where having an attendant is worth their weight in gold will also be discussed. Our experiences with transporting hummingbirds by air, and what we learned along the way will be the focus of this presentation.

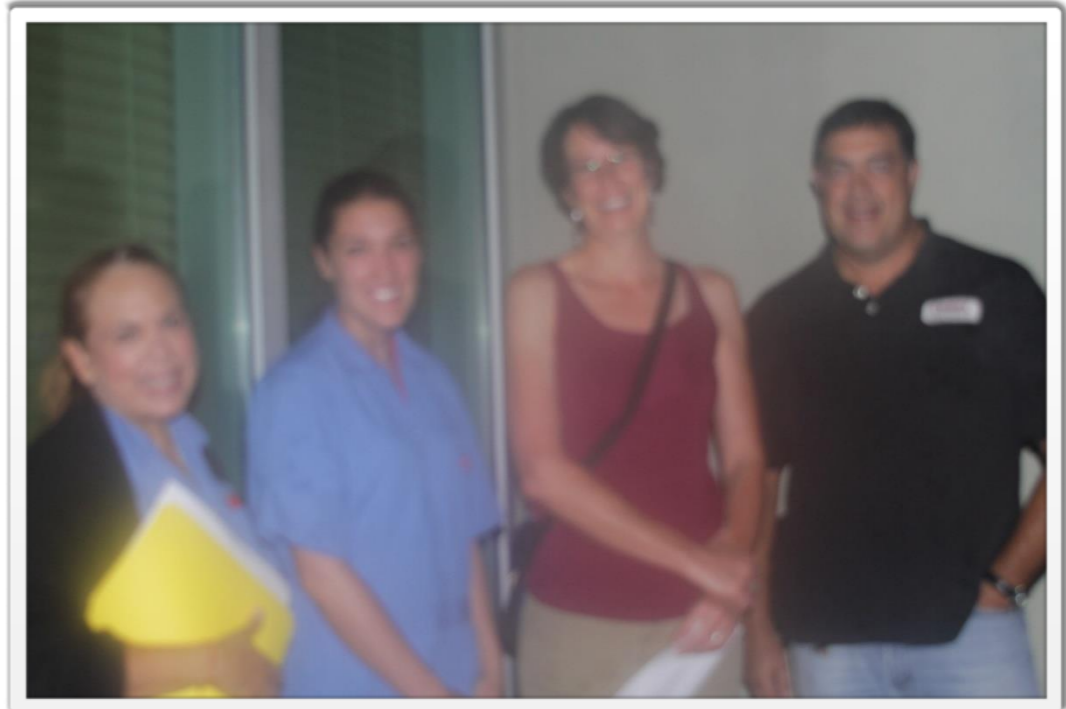


- Blue-Chinned Emerald
- White-Necked Jacobin



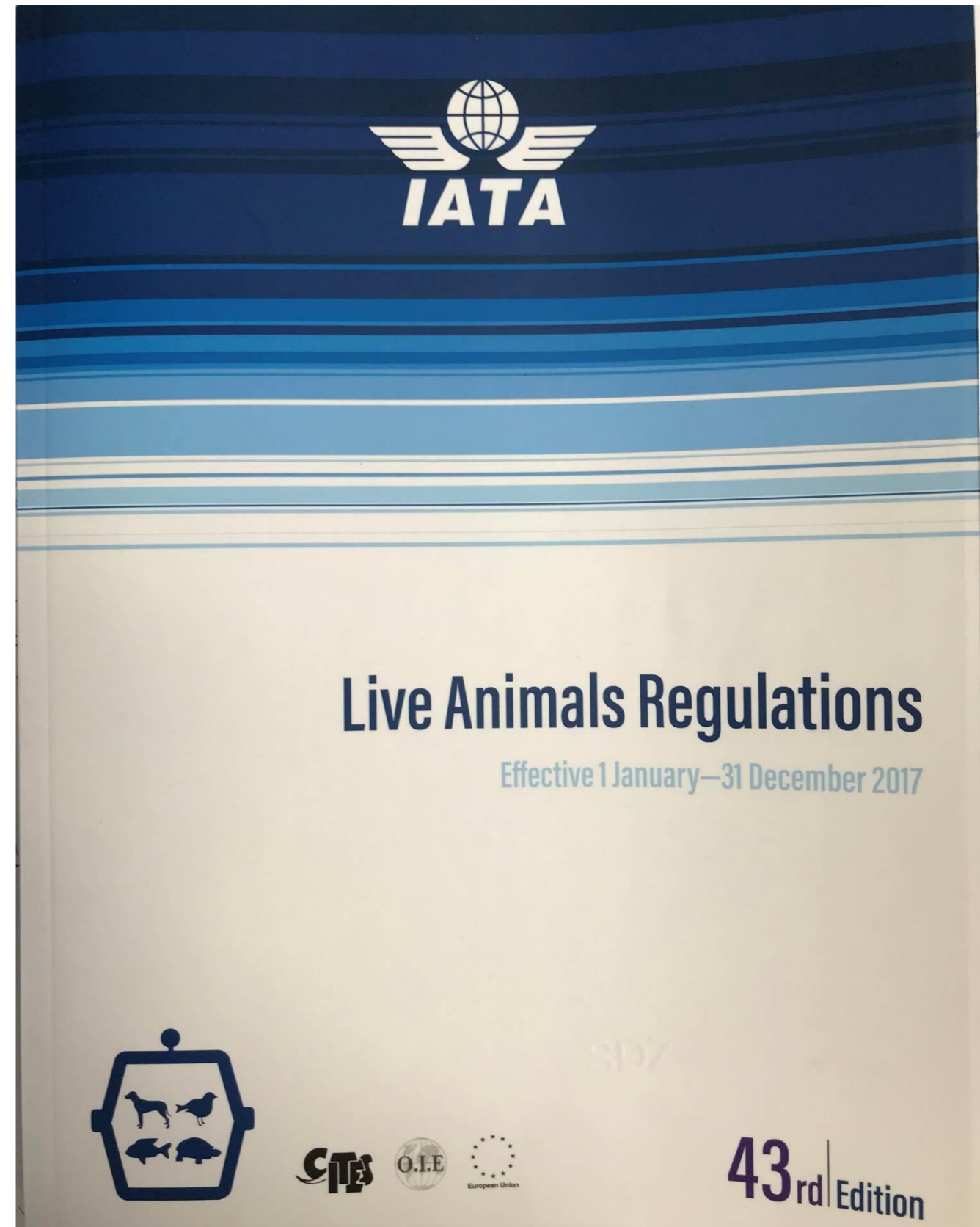
First things First: Relationship building

- We worked together with Federal Quarantine team for months.
- Nectar feeders and food shipped to quarantine station ahead of birds.
- Constant contact: are the birds adapting to the feeders? Do they have enough food for the quarantine period? Are they acclimating to temperature for shipping?
- Shipping crates sent to Trinidad first, birds shipped to Quarantine in them. Same crates used; familiar, tested.



Hummingbird Crate Design

- safety Safety SAFETY!
- IATA manual followed exactly
- Light availability in compartments. (Opaque roof)
- Flow through ventilation
- Nectar compartment (exterior access)
- Hanging Bottle (back up!)





Broad details of shipping design: flow through ventilation, opaque top, mosquito netting under hardware cloth, light color shade cloth for privacy but still allow maximum light



Design details: dual perching; one high, one low near ground feeder. Mosquito netting over hardware cloth, feeder access to outside.

Early Morning Packing



- Curator team found early flight to keep transport time as short as possible.
- Smooth sailing due to good communication and prep work.
- Use of broker for paperwork, permit, airbill transfers.



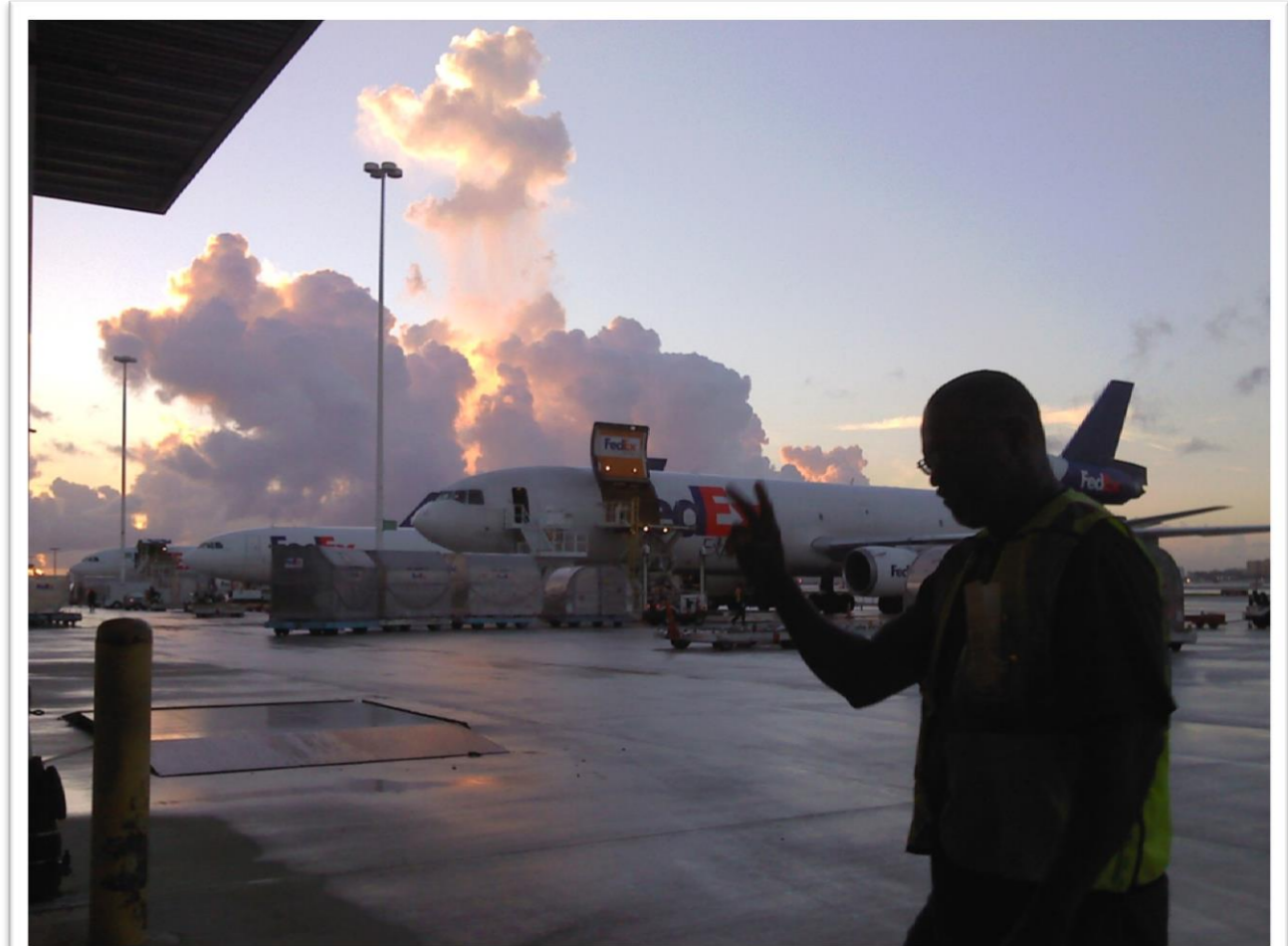
Well before dawn the Quarantine Team had all the birds packed. We were not allowed to go inside due to quarantine regulations. Everything went smoothly due to the level of communication with the facility.



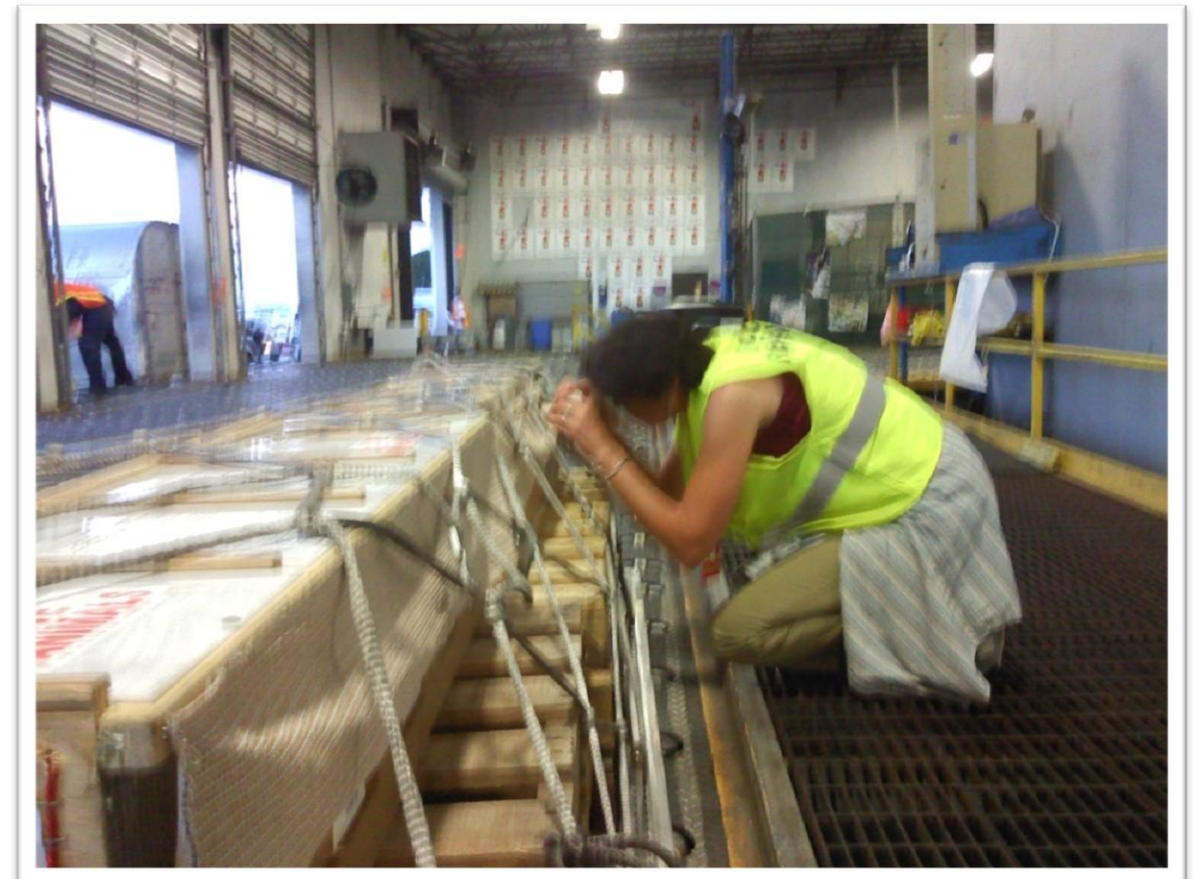
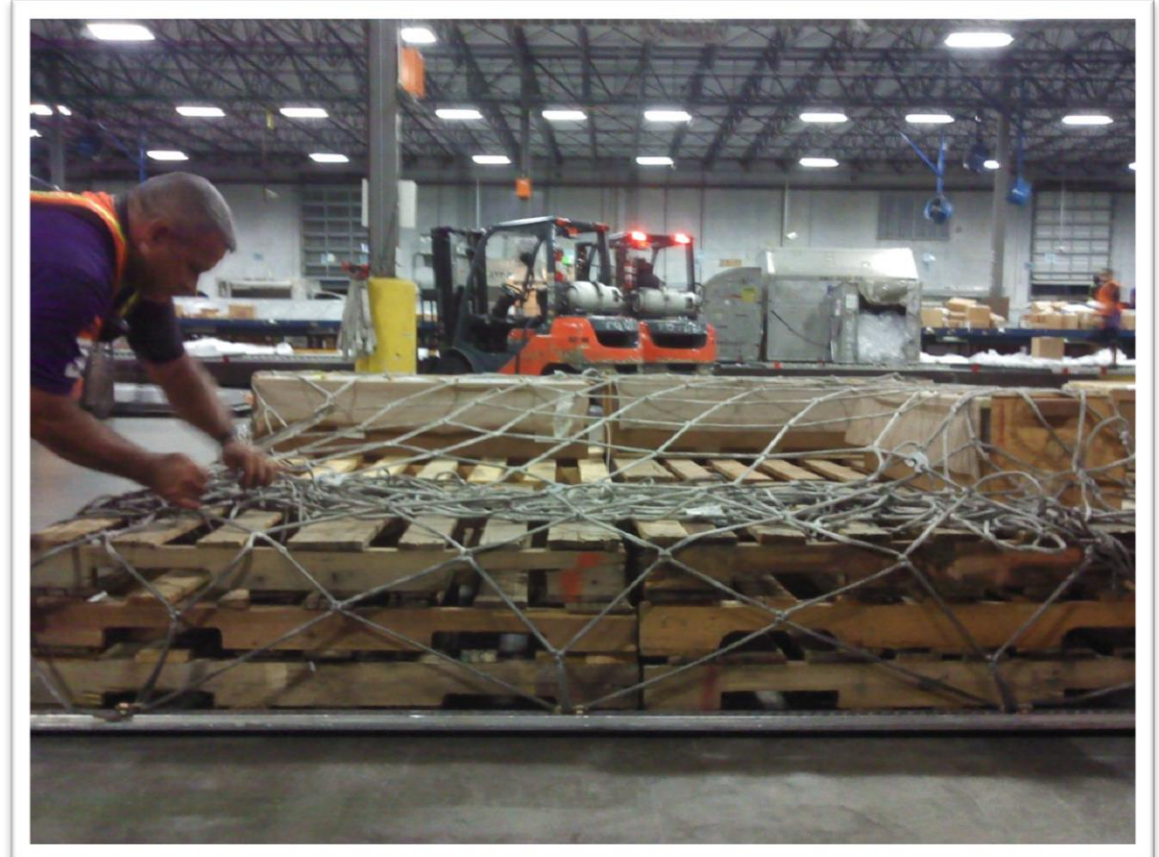
An extra step required in this shipment process was that special clearance was required for our entry into the FedEx facility and on to the planes.

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- Miami Sunrise!
- Planes are waiting for an early start.



The loading bays were expectedly busy and loud. We were allowed to be near the hummingbirds the entire time. The loaders did their best to place the birds away from other activity and to work quickly and efficiently to minimize stress on the birds as the crates were placed on the pallets and netted.



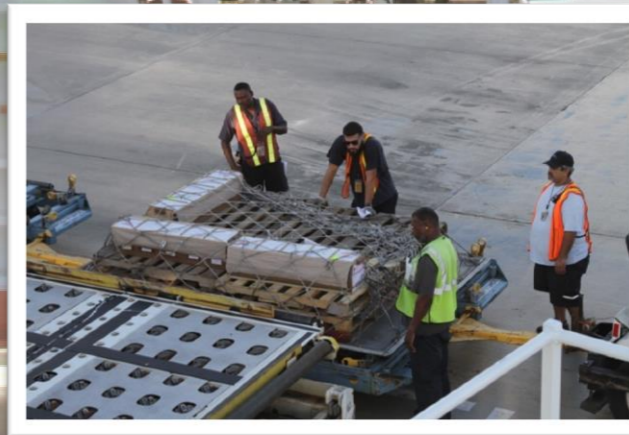
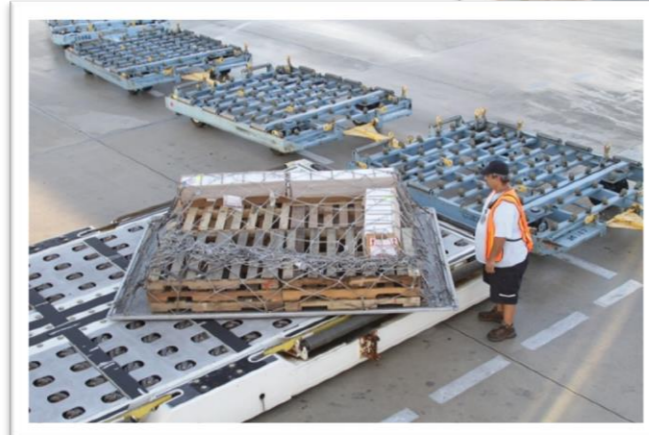


As transporters and advocates we were able to oversee the birds every step of the loading process.



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Last on – first off.
Every detail was
attended to by the
load master
including the
direction of the
crate on the loader.





Each pallet has a mapped location on the plane. Clips hold the pallet in place. Our birds were placed in the position closest to the front of the plane and near the jump seats where we would be for the flight. The birds are locked and loaded.





Once the bay doors were closed, the pilots asked about temperature and lighting for the birds. We asked for the lights to be turned off during flight to keep the birds more quiet, and the temperature was maintained at 72 degrees.



It was quickly evident that even though we had an entire first aid kit, extra food, and nets, we would not be able to respond in the air. At this point we had to trust that all was well.

Miami to Memphis: 2.5 hours (flying in style)



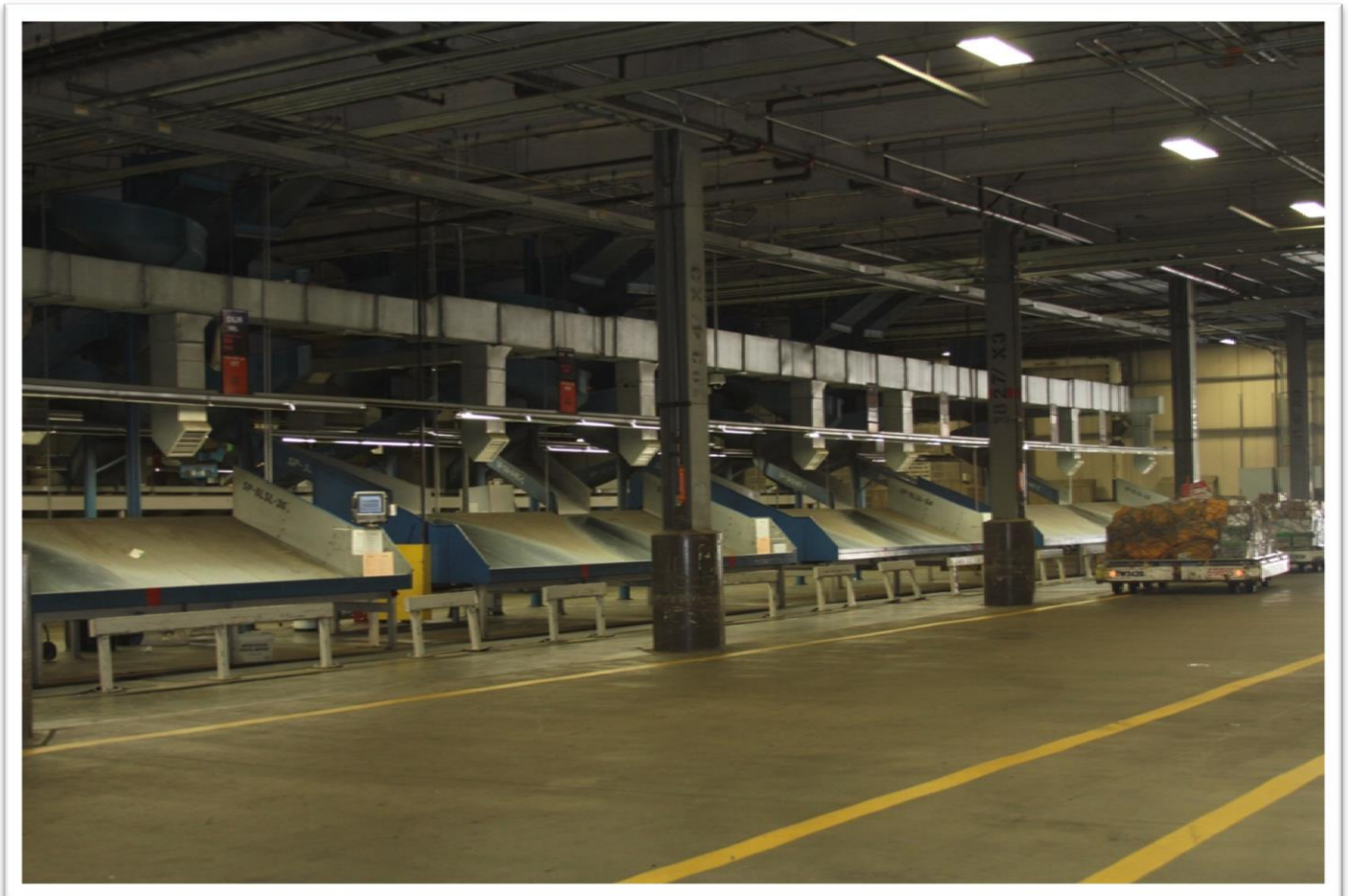
During flight there would be no way to access the individual compartments. The chain and canvas curtain was drawn during flight – light and temp controls were set by the pilots to our parameters.



Memphis Layover: 6 hours

- Gigantic warehouse
- Other animals
- Attendant!
- (No Frills!)
- Back up plan was made with FedEx in case of an animal emergency during our layover.

The birds were not unpalletted. Our back up plan in case of emergency was to call our Fed Ex Liason, and we would have then been transported to an enclosed area where we could have triaged the bird.



Checking
and waiting,
waiting and
checking



The birds were difficult to see feeding due to the length of the hanging feeders that were placed in the interior of the compartments. What we learned was that in order to fully confirm regular feeding, we would hang the tubes at a shorter length next time so the feeder ports would fall within the window space for better visibility to us. Luckily the backlight at both ends of the warehouse illuminated the birds so we could see motion. We were also able to hear their wing whirs so we knew they were doing OK. The nectar feeders in the bases were full enough for the duration of the trip that we didn't feel the need to check them but we were prepared to refill if necessary. The hanging bottles also had a bit of spillage from the travel movement which the base feeders did not.

Warehouse Companions

- The animal warehouse had race horses and chickens nearby.
- As advocates we were aware of their proximity to our birds and prepared to speak up if there was a problem.

Another example of where having a transport advocate can minimize problems.



Whats wrong with this picture? The answer defines perfectly why having an transport assistant is worth it's weight in gold. The exhaust from the tractor was blowing right into the hummingbird crates. Immediately I asked them to stop and pointed it out. The warehouse assistant was very cooperative and willing to change out the tractor for the benefit of the birds. Without an advocate this might have gone unnoticed.



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Great Customer Service

Quickly and efficiently
changed tractors.

Tractor to next plane.



Last Leg Home: Tractoring to the last plane.

Fed Ex facility is a gigantic place – it's own little city. While we were in the car following the tractor, the driver wanted to make an unscheduled stop at the office for something. The warehouse manager who was driving our vehicle told him absolutely not – head straight to the plane with the animals. Another example of where being present possibly made a difference.





Note that the crates had shifted a bit, but all compartments were still accessible. They were last on, to be first off.







Grace

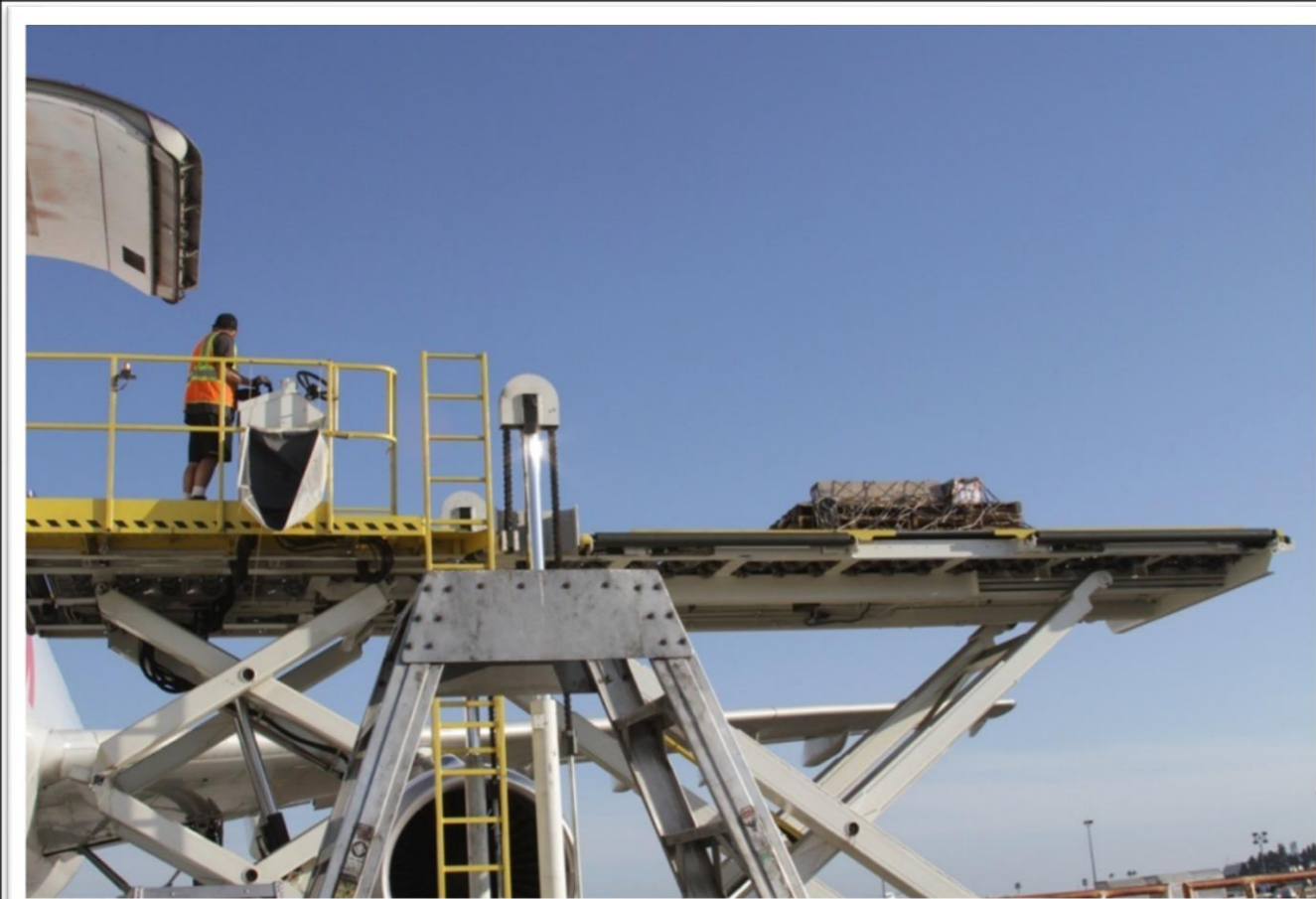
The World On Time

12690

FedEx

744

10907

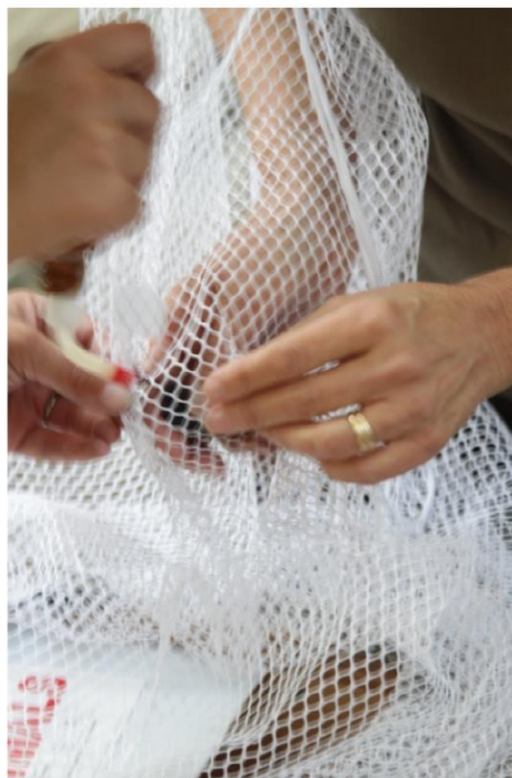


Our zoo team was waiting at the airport at the FedEx office. The birds were first off and loaded into the van quickly!



Unloading at San Diego ZOO

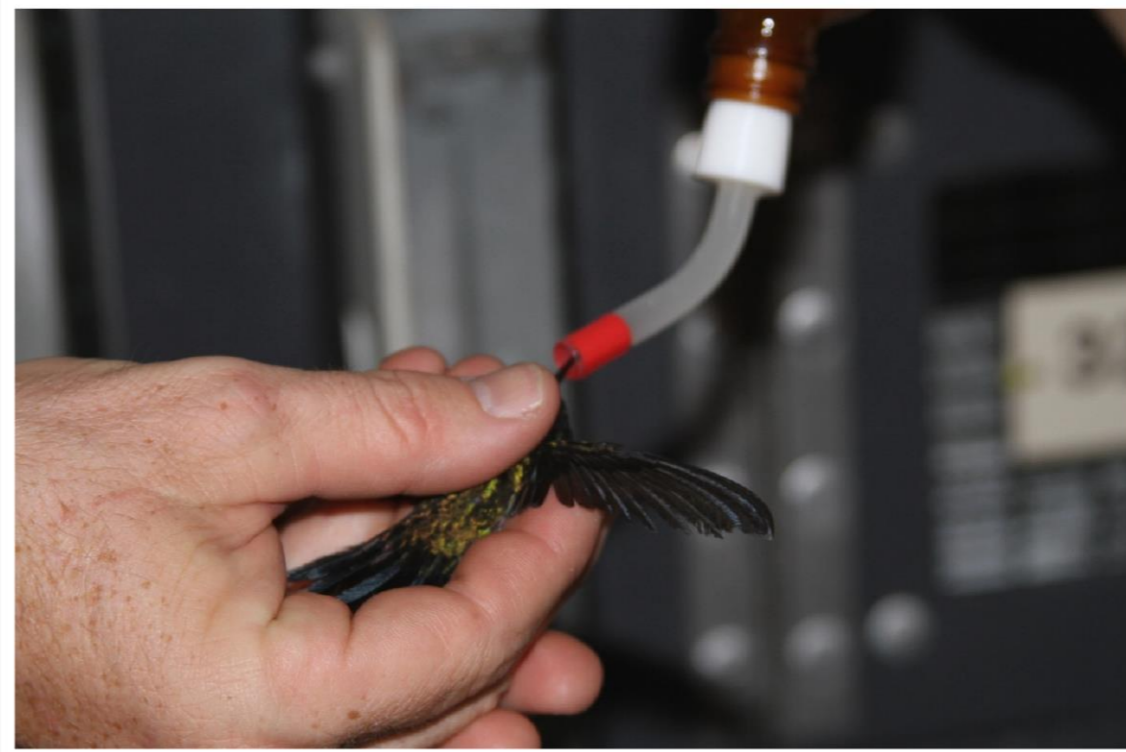
- Un-box, feed, release



We had our whole team waiting so that we could get the birds unpacked, fed and settled rapidly. After they were put up in their quarantine cages, we had a team that stayed and watched and documented that each one had been seen eating.

Assessing the birds





After the birds were unboxed we assessed the crates, the volume of nectar that remained, the amount of nectar that may have spilled. In the left photo you can appreciate where the hanging feeders were placed were very secure, but it was hard to see the birds feeding from them during the trip.



Hummingbird Transport Success Points

- Communication and relationship building
- Crate Design
- Itinerary planning
- Transport Assistants/Advocates
- Teamwork



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Questions?

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