

DELIVERING HEALTH IS OUR MISSION











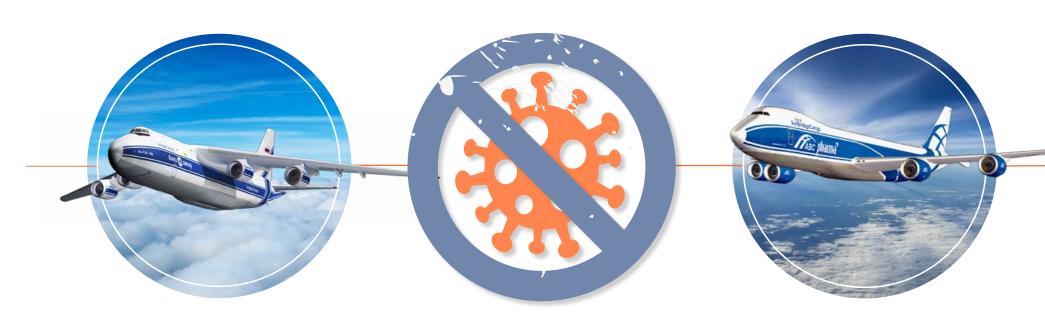
NEW REALITY

AND AIR CARGO IMPORTANCE.

In 2020 the world faced unprecedented challenge – COVID-19 pandemic. No single company across various industries had an experience of overcoming it and we all had to adapt simultaneously and adjust our workflow, procedures and processes.

While the novel virus spread throughout different countries and we have seen more nations going in lockdowns, the air cargo industry has become important as never before. With the global passenger fleet being grounded, freighter carriers have been on the frontline to spin the much-needed cargo across the globe and provide dedicated solutions for pharma shipments.

Pharmaceutical & healthcare products have always been the specialty cargo with **high level of quality requirements**. Not only COVID-19 intensified these requirements, but it has also put the speed of delivery at the forefront as countries needed urgent deliveries of PPE and other medical equipment amid spread of the pandemic. With so many restrictions being imposed almost every hour by various countries and regulators, cargo carriers had to adapt their operations simultaneously to meet the sky-rocketing demand for transportation of PPE worldwide.







From the viewpoint of cargo carrier operations, there were the following trends:

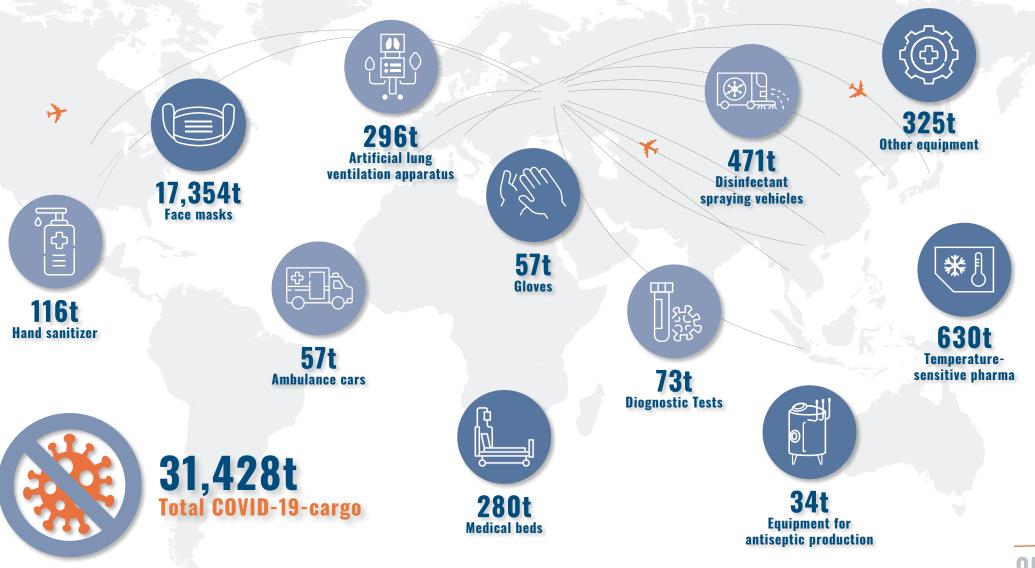
- **Ability to leverage regional outbursts.** Rapid changes in regional demand which were to be met in terms of capacity and personnel availability. This was caused by the spread of COVID-19, which started in China and later on spread across other countries of Asia, the Middle East, Europe, and beyond. The carriers were expected to guarantee capacity first to China, then from China and other Asian countries to Europe and later on to USA and Latin America. Furthermore, carriers had to negotiate quarantine and sanitation measures for their personnel, which included cancellation of 14-day quarantine for crew upon arrival into another COVID-19 affected country, availability of PPE for all the personnel, disinfection of cargo and aircraft, etc.
- **Demand for sterile services.** With the spread of COVID-19 carriers across the world have introduced sterile flights, which embraced disinfection of cargo, aircraft, medical checks of the personnel and PPE in places. This relates not only to pharmaceutical shipments, but to all the cargo being delivered.
- **Long and midterm cooperation.** With unstable situation and capacity constraints customers and carriers value long-term cooperation as a guarantee for stability of future business and deliveries.
- Forecasting and state of readiness. Although it is hard to forecast under the current circumstances, some tendencies are still here and it is better to be prepared. For instance, with every country working under COVID-19 vaccine program, it is evident that this traffic will show up eventually.
- We work with ULD providers, pharmaceutical companies and stakeholders to make sure we are prepared to accommodate this cargo when needed.
- Flexibility and the possibility to adapt to the changing environment (schedule, lanes) has become the backbone of the COVID-19 logistics.
- Making sure that the global supply chain of live-saving pharmaceuticals, where airlines play a focal role, remains uninterrupted.





AIR CARGO RESPONSIVENESS AND AGILITY

With over thousands of tonnes of COVID-19-related cargo being delivered by air so far in 2020, Volga-Dnepr has contributed with its dedicated services delivering various types of cargo, among them being masks, gloves, mattresses, beds, artificial lung ventilation apparatus, mobile laboratories and others.







COVID-19 VACCINE – GLOBAL LOGISTICS CHALLENGE

With so many economics struggling from pandemic influence, major nations are developing COVID-19 vaccines as a viable treatment and possibility to get to pre-covid reality and maintain healthy and safe environment.

COVID-19 pandemic served as a trigger for revolutionary development of vaccines, with major pharmaceutical manufacturers doing their best to introduce new vaccines, go through all the phases of testing and start up with mass production for the benefit of people worldwide.







Volga-Dnepr has been sharpening its expertise in vaccine transportation to guarantee integrity of life-saving products throughout the whole supply chain and implemented 360-degree strategy to leverage vaccine flows once the final phase testing is completed.

INTFRNAI

- Temperature mapping of all AC types within the Group to understand which parts of cargo compartments work best for vaccines
- Special solutions for logistics of temp-controlled containers after completion of vaccine transportation (as part of the AC equipment, through charter options, etc)
- Working under various options for vaccine delivery onboard all types of the Group freighters (Boeing 747F, Boeing 737F, Boeing 777F, An-124-100/150, II-76TD-90VD)
- Regular immunization program shipments, maximum number of active/passive containers per flight as prep for COVID-19 vaccine

EXTERNAL

- Workshops with vaccine manufacturers to understand all the conditions for safe vaccine transportation
- Workshops with customers to get update about the delivery options
- Internal trainings of the personnel (Sales, Marketing, Operations, Crew)

SUPPLIERS

- Regular meetings with suppliers participants of cold-chain logistics
- Risk assessment of the airports within and outside of the existing network
- Regular follow-up with suppliers of temperature-controlled containers, renewal of lease agreements
- Workshops with ground handling agents regarding required capabilities
- Regular communication with airports
- Station profile across its temperature-sensitive facilities and capabilities



COLLABORATIONS

- Regular dialogue with governmental, global healthcare organizations and other legal entities
- Industry association Pharma.Aero
- Validaide risk assessment





FLEET CAPABILITIES

Pharmaceutical manufacturers intend to ramp up their capacities to produce COVID-19 vaccines by the end of 2021, or even earlier once the phase III testing is finalized. The major nations have already set deals to buy enough quantities of vaccine doses to vaccinate their population. With most of the vaccines being developed and later produced on the biggest manufacturing sites worldwide, we expect high demand for high-quality services in terms of temperature-sensitive pharmaceutical products and have mapped out solutions using capabilities of our freighter fleet.







FLEET CAPABILITIES	AN-124-100/150	IL-76TD-90VD	BOEING 747F (IATA CEIV)	BOEING 737-400SF/800BCF	BOEING 777F
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TOTAL PAYLOAD (TONNES)	120/150	50	100/120	20/23	106
CUBIC METERS	700	321	752/856.7	130	652.7
PALLETS	20	no	34 aircraft pallets	11 aircraft pallets	27 aircraft pallets on MD 10 on LD
DESTINATIONS	unique destinations/routes	unique destinations/routes	major cargo airports	major cargo airports	major cargo airports
TEMPERATURE ENVIRONMENT	15-20 C	15-25 C	4-29 C	15-25 C	4-29 C
TEMPERATURE MAPPING	in progress	in progress	yes	in progress	in progress
MIN. AIR PRESSURE	480 mbar (P 0.25) +0/1/-0.02 kg/cm²	750 mbar (2 500 m) P 0.52 kg/cm²	adjustable	adjustable	adjustable
MAX. NUMBER OF CONTAINERS	56 RKN / 20 RAP	16 RKN / 6 RAP	60/68 RKN / 29/33 RAP	10/12 RKN	54 RKN / 27 RAP
HUMIDITY DURING FLIGHT	10-15% RH	10-15% RH	adjustable	adjustable	yes
DATA LOGGERS	upon request	upon request	yes	yes	yes
COMMODITIES					
PPE	yes	yes	yes	yes	yes
MASKS	16.2 mln	4.7 mln	20.8/24.2 mln	3.9/4.2 mln	10.7 mln
VACCINES	yes	yes	yes	yes	yes
ADDITIONAL SERVICES					
STATION PROFILES	upon request	upon request	yes	upon request	yes
RISK ASSESSMENT	upon request	upon request	yes	upon request	yes
DRY ICE LIMITATIONS					
	no limit	3,000 kg	3,000 kg *could be increased up to 5,000 kg	800 kg	2,500





GLOBAL COVERAGE

Volga-Dnepr Group has been expanding its network to meet the needs of its customers worldwide. Today, under **Cargo Supermarket** concept with one-stop-shop options the customers have access not only to the whole freighter fleet of Volga-Dnepr Group but also to network of other carriers within the Group and strategic partners. That said, the Group is ready to leverage the emerging volumes of vaccines, powered by trustworthy partners throughout the cold chain, its extensive network of scheduled operations and unlimited number of charter options.



VACCINE TRANSPORTATIONS

Based on market analysis and close communication with manufacturers, our customers and other stakeholders we expect the following trends to emerge when we talk about vaccine shipments:

- Commercial phase will start Q2 2021
- Linear demand growth of the air freight transportation for the first 6-9 month with further stabilization and then decline
- 2-year distribution program to cover 50% of the global population
- Double doses requirement for 90% of the vaccine
- 2,1 bln doses will be transported by air, other 5.7 bln local/country production + RFS, sea, railway
- 6000 doses per 1US/EU pallet -> 1 RKN -> 363K RKN to accommodate 2.1 bln doses

EFFICIENT HEALTHCARE JOURNEY WITH TRUSTED AND RELIABLE PARTNERS





Almost all developing vaccines are temperature-sensitive which means that their transportation is possible only in special containers capable to maintain required temperature environment. Throughout the years of working with sophisticated pharmaceutical products, we have collaborated with the leading providers of active and passive containers, expanding the pool of trusted and reliable partners to guarantee integrity and safety of the transportation.

#healthcare #pharmaceutical #network



SONOCO THERMOSAFE PHARMAPORT® 360 Precise 5°C Temperature Control



SONOCO PEGASUS Fully Pre Conditioned for +2°C to +8°C



C-SAFE (RKN) +4°C/+25°C



C-SAFE (RAP) +4°C/+25°C



DOKASCH (RKN) +2°C/+30°C



DOKASCH (RAP) +2°C/+30°C



ENVIROTAINER E1 (RKN) 0°C/+25°C



ENVIROTAINER E2 (RAP) -20°C /20°C



ENVIROTAINER T2 (RKN)
Refrigerated container
-20°C/+20°C



ENVIROTAINER T2 (RAP)
Refrigerated container
-20°C/+20°C



SKYCELL (2500C, 2500CRT, 1500C, 1500CRT, 770C, 770CRT) Passive container



VA-Q-TAINER (XLX, TWINX) Passive container -70°C/+25°C



VA-Q-TAINER XLX
Passive container
-70°C/+25°C



VA-Q-TAINER TWINX
Passive container
-70°C/+25°C



VA-Q-CASE HALF EURO
Passive container
-70°C/+25°C



VA-Q-TAINER EUROX
Passive container
-70°C/+25°C



+2°C/+25°C

VA-Q-TAINER USX Passive container -70°C/+25°C





CLEAN SERVICE

- A PEACE OF MIND FOR OUR BUSINESS AND GREAT CONTRIBUTION TO #STAYSAFE

With more than three decades of history, Volga-Dnepr Group has more than once met the challenges of epidemic, the most recent one being the fight against Ebola. That said, we did not have to adjust our operations from scratch as we've already had procedures in place. Although with COVID-19 the air cargo industry was expected to come up with additional services which could give the customers extra peace of mind and also guarantee that the carrier's personnel do not transmit the virus while working on the frontline. We have thoroughly analyzed the needs of our customers and introduced our **CLEAN SERVICE** which covers:

CLEAN CREW



- PPE & Regular COVID-19 testing for crew personnel
- Regular medical checks
- Special biosafety measures
 (dedicated airport corridors excluding contacts with other passenger flows, separate hotel accommodations & meals, disinfection of crew transportation vehicles)

All the procedures are introduced to avoid 14-day quarantine upon arrival in certain countries and guarantee that NO SINGLE crew member transmits the virus.

CLEAN AIRCRAFT



- Disinfection of aircraft (cargo compartments, cockpit)
- Station profile for each destination with reliable partners for disinfecting services

During the pandemic the freighters have become the backbone for speed and safe logistics. With biosafety being of paramount importance within Volga-Dnepr we have introduced a signle quality standard for all the carriers within the Group.

CLEAN CARGO





 Constant communication with World Health Organization, Rospotrebnadzor and other entities to keep the pace with the latest changes

With health being one of the core values for the Group, we care for our personnel as the main asset. That said, all of our non-frontline personnel worldwide work from home with constants COVID-19 support, medical consultancy and seasonal health programmes (flu vaccination). New normal dictates new rules and we are ready to weather them, supporting our customers and partners.





A TOTAL LOGISTICS SOLUTION

Through our CARGO SUPERMARKET concept we aim to make life of our customers easier. Our 'ONE-STOP-SHOP' service improves customer experience, making it seamless, faster and reliable. Here is how it works within Volga-Dnepr Group:

CARGO REOUEST

with all the characteristics

- Dimensions
- Type of cargo
- Commodity
- Weight
- Origin
- Destination

CLASSIFICATION OF CARGO

general, temperature, non-temperature, oversized, heavy, dangerous, live animals, etc.

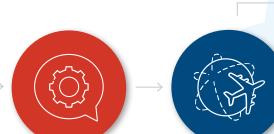
- Cargo guoting
- Route planning, incl. trucking (if needed)
- Minimum list of transportation conditions
- Loading conditions
- Choice of aircraft
- Calculation of costs
- Packaging requirements

SCHEDULED CARGO OPERATION

- Route is within scheduled carriers' network
- Payload starting from 0.5 1 kg
- Additional equipment of ULD for transportation of specialty cargo (temperature sensitive, dangerous goods, etc)

LOGISTICS CONSULTING

- Door-to-Door delivery
- Working out of cargo routing, its verification and assessment - from production site to final destination
- Combined worldwide multimodal schemes using road, rail and sea transport modes
- Cargo insurance and storage



ENGINEERING CONSULTING

- Technical cargo analysis and loading options
- Solution for cargo handling
- Solution for fast and safe on/offloading
- Design and manufacture of special loading equipment
- Load planning using 3D simulation



CARGO BOOKING

receipt of tracking number, notifications to customers upon cargo movements

CHARTER CARGO OPERATION

- Payload equals freighter's capacity
- Route is outside scheduled carriers' network
- Airports of origin and destination lack some cargo handling equipment
- Cargo is outsized or super heavy to transport on board B747, B777 or B737 freighters
- Design and manufacture of special frames to enable loading and transportation of cargo



CONTACT US



Yulia Celetaria Global Healthcare Director, Volga-Dnepr Group

P: +49 6924 7579 760

M: +49 173 217 4264

yulia.celetaria@airbridgecargo.com

in <u>VIEW PROFILE</u>





WE CARE.



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