



ATHENS
SEPTEMBER 4-7, 2022
AT THE GRAND HYATT

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ON THE FUTURE

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Regaining Control of ULD assets

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20-25000 PMC



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Lets start at the beginning....

- 1970's- Swissair and other airlines create the Interline ULD User Group- IULDUG- to establish procedures and an IT system to manage the transfer of ULD between carriers during cargo interlining.
- 80's,90's and 00's. The IULDUG community grows to around 50 airlines.
- Late '00's. Wed based system replaces original hosted on the IATA main frame.





Meanwhile....

- Massive growth in air cargo
 - Airlines
 - Airports
 - Forwarders
 - Tonnage
- Off airport activities explode



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Demurrage for ULD

- 1998 Air New Zealand sets up a ULD demurrage program in AKL to cover not only NZ but the carriers handled by NZ.
- Early '00's LH starts to implement a ULD demurrage program



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E-UCR project

- Launched by ULD CARE early '10's

Emirates

ULD CONTROL RECEIPT

CONTROL RECEIPT NUMBER

CONTROL RECEIPT NUMBER	FINAL DESTINATION	CONDITION
1 7 6 - 0	AMS	SER
1 7 6 - 1	AMS	SER
1 7 6 - 2	AMS	SER
1 7 6 - 3	AMS	SER
1 7 6 - 4	AMS	SER

ULD RELEASED

Releasing Carrier or Customer Signature: SV HEL

Date: 18 JUL 2021

Time: 16:00

Customer: EK SKY CARGO

Location: Nairobi, Kenya

Other Charges: \$

TOTAL CHARGES: \$

What's the problem?

- Control and visibility of ULD movements off airports is an industry wide issue.
- The current UCR form standard does not adequately meet the needs of the industry
- The UCR form is not user friendly.
- Process for ULD transfer and LUC message does not have a proper 'home' in IATA manuals



The E-UCR journey

- Problems identified
- Papers produced and submitted to IATA
- IATA created XML schema

AND THERE IT STOPPED

Proposal for Electronic UCR

NOTES TO BE REMOVED LATER:

IN THE REVIEW OF THIS DOCUMENT:

- Yellow highlight in text (not in picture) indicates a comment or a question to be considered before final approval. (Should not be removed until full review is completed)

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Fast forward to 2017/18

- ULD CARE started to hear about Blockchain- then primarily Crypto
- Found that there were some interesting non-crypto Blockchain endeavours
 - Maersk- IBM
 - DHL
 - Cathay Pacific and SIA frequent flyer programs.



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2018/2019

- Cathay Pacific demonstrated a blockchain POC for ULD transfer material
- ULD CARE and SITA opened discussions on a blockchain based POC replicating the current IULDUG functions
- End 2019 ULD CARE and SITA agreed to go ahead with a POC



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2020/2021

- POC successfully completed
 - NZ, CX, EK, LH participated
 - Demurrage calculations replicated the IULDUG line for line
 - Ability to handle transfers using non-airline parties proven

SITA ULD Interlining | Lufthansa

Demurrage Receivable

ULD	Transfer Date	Receiving Party	Transferring Party	Transfer Point	Control Receipt	Final Destination	Condition Code	Special Code	Posting Date	Demurrage
From Carrier: DHL										
AKEX130LH	31Dec001 1831	DHL	LH	AKL	086 03001805	123456780118	SER	DEF	30Jun2020	347.20
										DHL Total: 347.20
From Carrier: NZ										
PMCB105LH	04Aug2018 0758	NZ	LH	VYR	020-06801347	XXX	SER		18Aug2018	1512.00
AWA1890LH	16Aug2018 0902	NZ	LH	LAX	020-1829311	XXX	SER		22Aug2018	2016.00
PMCA400LH	08Sep2018 0843	NZ	LH	VYR	020-06805081	XXX	SER	ZZZ	03Oct2018	0.00
PMCA439LH	05May2018 0729	NZ	LH	VYR	020-06560216	XXX	SER		11May2018	1512.00
PMCA497LH	28Aug2018 0210	NZ	LH	VYR	020-06784430	XXX	SER		05Aug2018	1512.00
PMCA473LH	21Jun2018 0818	NZ	LH	VYR	020-06788860	XXX	SER		27Jun2018	1512.00
PMCA055LH	14Jun2018 0827	NZ	LH	VYR	020-06752411	XXX	SER		20Jun2018	1512.00
PMCA072LH	18Jun2018 0912	NZ	LH	VYR	020-06687494	XXX	SER		22Jun2018	1512.00
PMCA051LH	12May2018 0750	NZ	LH	VYR	020-06606478	XXX	SER		18May2018	1512.00
AKEX272LH	21Sep2018 0841	NZ	LH	LAX	020-18911370	XXX	SER		27Sep2018	2016.00
AKEX197LH	18Sep2018 0844	NZ	LH	LAX	020-09005445	XXX	SER		24Sep2018	2016.00
AKEX498LH	27Sep2018 0909	NZ	LH	LAX	020-06627113	XXX	SER		03Oct2018	2016.00
AKEX698LH	05Aug2018 0900	NZ	LH	LAX	020-06799639	XXX	SER		09Sep2018	2016.00

CARRIER: AA - AMERICAN AIRLINES Friday, 19 August 2022

NM/NO	ULD	TRANSFER DATE & TIME	RC	TC	TF	CONT	RCP	FD	CC	SC	NPC	SEQ	ADDITION		
													DATE LIST	DEMURRAGE	
AKE	41177	EK 08JUL2022 1157	AA	EK	MAD	176-61142512	DFW	SER	DEF			SEQ538	11JUL2022	403.20	
PAG	18405	JL 14JUL2022 0840	AA	JL	HNL	131-01426836	ATL	SER				SEQ578	03AUG2022	210.00	
PMC	30909	JL 20MAR2022 1415	AA	JL	HNL	131-01443204	ORD	SER				SEQ480	04APR2022	1,218.00	
PMC	81012	JL 08AUG2022 1100	AA	JL	HNL	131-11426824	IAH	SER				SEQ587	15AUG2022	42.00	
PMC	85690	JL 16JUL2022 0940	AA	JL	HNL	131-01426840	ORD	SER				SEQ578	03AUG2022	235.20	
LINE COUNT													5	GRAND TOTAL	2,108.40

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2021/2022

Now we know the technology can work how do we pay for it?

- Tradition is ask airline members to pay a system development fee.
- Need to build a justification
- Research and White Paper
- Deep dive into the numbers



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Executive Summary



Speed and efficiency form the backbone of air cargo operations. With a significant number of shippers now building up and breaking down of Unit Load Devices (ULDs) off-airport, there is one factor that dramatically reduces the ability of air cargo to deliver - the lack of a deterrent for the late return of empty ULDs back to its owner.

4.8. Unit Load Devices (ULD) Charges

(For carrier deviating/additional rules see section 8.3.)

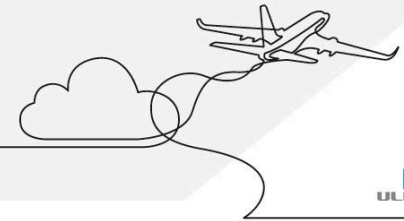
ULDs represent considerable capital and operating costs to airlines, although they also bring improved handling efficiencies. In the normal course of events ULDs move relatively seamlessly through the air-cargo supply chain, but there are scenarios where charges could be levied for the use or misuse of ULDs. These would typically vary from one airline to another and the following are examples of some of the possible ULD related charges that might be levied:

Demurrage

Demurrage charges may be levied, subject to provisions in applicable tariffs of the airline/ ULD owner, against a party that retains a ULD for an excessive period of time. The charge is designed to encourage prompt return of ULDs rather than generate revenue.

White Paper on
Demurrage Charges
for ULD Equipment
in Air Cargo

Increasing operational efficiency
by deterring the late return of ULD



ULDCARE

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uldcare.com



Airlines and late penalties

- NZ set up in AKL over 20 years ago
- LH set up globally since 2006
- CX set up in 2020
- Silk Way since 2019



Lufthansa

AIR NEW ZEALAND 


CATHAY PACIFIC

silkway
west airlines


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How about Ocean freight?

CONCLUSIONS AND RECOMMENDATIONS

Having developed a record on the issues identified in the Order of Investigation and reporting on them in the Interim Report, and having explored these and related issues and potential solutions in the second phase of the investigation, the Fact Finding Officer finds that:

- Demurrage and detention are valuable charges when applied in ways that incentivize cargo interests to move cargo promptly from ports and marine terminals;
- All international supply chain actors could benefit from transparent, consistent, and reasonable demurrage and detention practices, which would improve throughput velocity at U.S. ports, allow for more efficient use of business assets, and result in administrative savings; and
- Focusing port and marine terminal operations on notice of actual cargo availability would achieve the goals of demurrage and detention practices and improve the performance of the international commercial supply chain.





Comparable Industries

- Ocean shipping
 - Average free days: 4
 - Average demurrage after free days: 134 per 40 ft
 - Estimated annual charges by shipping line: > US\$ 4 Billion
- US Rail cars
 - > US\$2 Billion per year



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Closer to
home



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Airlines	Movements analysed	Responded	PMC Fleet	Weighting	Monthly PMC off airport trips	Monthly tfrs / fleet	Returned < 5 days	Returns <5days/m only transfers	Monthly PMCs more than 5 days	Monthly More than 5 days as % of transfers	Daily PMC outstanding	Average days off airport	Average of days overdue for > 5 days. i.e. overdue PMCs	Value of OD PMCs (@\$1000)	Sum of Demurrage due @\$10 (5D)	Sum of Demurrage due @\$15 (5D)	Sum of Demurrage due @\$20 (5D)	Monthly PMC Demurrage @ 5 free days / US\$25	
Virgin Atlantic GlobalFlyer	1	Y	8100		5400	67%													
Virgin Atlantic GlobalFlyer	21600	Y	16795	19.6%	8688	20%	2145	58%	1457	39.5%	570	8	4	\$ 1,457,000	\$ 147,517	\$ 221,275	\$ 272,503	\$ 368,791	
Virgin Atlantic GlobalFlyer			7038			0%			0	0.0%									
Virgin Atlantic GlobalFlyer			3358			0%			0	0.0%									
Virgin Atlantic GlobalFlyer	18498		4813	5.1%	2104	43%	1138	54%	866	45.9%	301	8	4	\$ 2,012,167	\$ 79,608	\$ 119,412	\$ 159,216	\$ 199,020	
Virgin Atlantic GlobalFlyer	1200		3900	7.2%	630	8%	0		330	86.0%	372	25	13	\$ 530,800	\$ 65,424	\$ 98,136	\$ 130,848	\$ 163,560	
Virgin Atlantic GlobalFlyer	21000		15000	18.3%	12837	81%	10417	82%	2210	17.5%		5	2	\$ 2,210,000	\$ 200,814	\$ 301,221	\$ 401,629	\$ 502,036	
Virgin Atlantic GlobalFlyer	21000		20000	23.9%	11893	51%	22013	64%	4610	36.4%		11	4	\$ 4,610,000	\$ 547,975	\$ 821,963	\$ 1,095,950	\$ 1,369,938	
Virgin Atlantic GlobalFlyer	21000		20000	23.9%	12000	57%	22000	47%	4037	38.3%		18	8	\$ 4,037,000	\$ 647,921	\$ 971,882	\$ 1,295,843	\$ 1,619,804	
Virgin Atlantic GlobalFlyer	21000		20000	23.9%	12000	57%	22000	47%	1116	35.9%		11	5	\$ 1,116,000	\$ 152,992	\$ 229,488	\$ 305,984	\$ 382,480	
Virgin Atlantic GlobalFlyer	21000		20000	23.9%	12000	57%	22000	47%	114	3.5%		11	4	\$ 114,000	\$ 86,090	\$ 129,133	\$ 172,180	\$ 213,225	
Virgin Atlantic GlobalFlyer	21000		20000	23.9%	12000	57%	22000	47%	1110	35.7%		11	8	\$ 1,110,000	\$ 187,811	\$ 281,931	\$ 375,942	\$ 469,828	
	321388		93000		43837	41%		60%		36.9%				6					



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Looking ahead

Technology
selection

Development
financing

Launch
customers





Risk/Reward

- Risk

- Require new technology?
- Require change to industry standards?
- Require change in business practices?

- Reward

- Return of otherwise idle ULD
- Platform to levy penalty fees in case of over due return of ULD
- Industry sustainability, more efficient use of airline's assets, reduced waste.



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Why ULD CARE?

- Transparent
 - Transactions visible to all parties to a particular transaction
- Efficient operation, minimize need for admin
 - Integration with payment platforms
 - Front end data acquisition (E-UCR)
- Neutral operator
- Security



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Its time to regain control of our ULD !!!!

