



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Aviation Safety  
Washington, D.C. 20594

February 2, 2015

### **Attachment 30 – Bastion Loading**

# **OPERATIONAL FACTORS**

**DCA13MA081**

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**A. BASTION LOAD DOCUMENTS**

**1.0 First Email Chain**

**Alfredo Gumbs**

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**From:** Vijayan Puthanpurayl [vputhanpurayl@nationalaircargo.com]  
**Sent:** Friday, April 26, 2013 6:29 AM  
**To:** Ranjit Ratnakaran; LoadPlanner-DWC; LoadPlanner-DWC@nationalaircargo.com  
**Cc:** CAPCON; FMC; Naveen Karunakaran; DWC\_Ops  
**Subject:** RE: PAYLOAD N952CA/27th Apr  
**Attachments:** Dubai-20130329-00551.jpg; Dubai-20130329-00552.jpg; Dubai-20130329-00554.jpg

Dear Ranjith/CAPCON,  
We can Airlift below heavy Vehicle no problem, attached built-up pictures of three heavy vehicle(sandwich pallet) not good .  
there is not enough contact to spread the load , very difficult to turn the vehicle from the Aircraft this is a heads-up  
to avoid any difficulty in loading time . Attached few pics for reference kindly pass this to OAZI tell them follow similar shoring procedure otherwise there will be a problem to load these three vehicle tomorrow.

2	3	117	2.98	45853	18031	PGF 002	9	UN3166	DWC
5	3	116	2.95	46880	18435	PGF 005	9	UN3166	DWC
1	3	115	2.92	41023	18647	PGF 001	9	UN3166	DWC

Thanks ,

V/r.  
VIJAY  
LOAD PLANNING  
NATIONAL AIR CARGO -DWC  
E-mail [REDACTED]  
Mob-[REDACTED]

**From:** Ranjit Ratnakaran  
**Sent:** Friday, April 26, 2013 1:52 PM  
**To:** LoadPlanner-DWC; [REDACTED]  
**Cc:** CAPCON; FMC; Gayan Weeratunga; Roger Parcon  
**Subject:** PAYLOAD N952CA/27th Apr

Load Planners,

Please find the payload for tomorrow flight..

B-747/N-952CA						
27-Apr-13	NCR-510/ISF50AQ	LFLX	14:25	21:30	OAZI	55000 KG ( Approx )
28-Apr-13	ISF50AQ/NCR-948	OAZI	1:30	4:30	OMDW	95500 KG

**LFLX – OAZI**

Approx weight :

5 Stack x 463 L – 15000 kg  
 5 X 20” Container – 40000 kg

**OAZI – OMDW ( Picture attached for 5 x PGF loads )**

OAZI - DWC										
COUNT	Pal_Pos	Hght	METER	WT- LBS	WT- KGS	PLT_ID	HClass	UN_ID	AMD REF & FINAL DEST.	ADDIT. INFO
1	3	115	2.92	41023	18647	PGF 001	9	UN3166	DWC	AZI 1616. 4 Incl O/H
2	3	117	2.98	45853	18031	PGF 002	9	UN3166	DWC	AZI1613. 2 Inch O/H
3	3	115	2.92	31999	12583	PGF 003	9	UN3166	DWC	AZI 1611. 6 Inch O/H

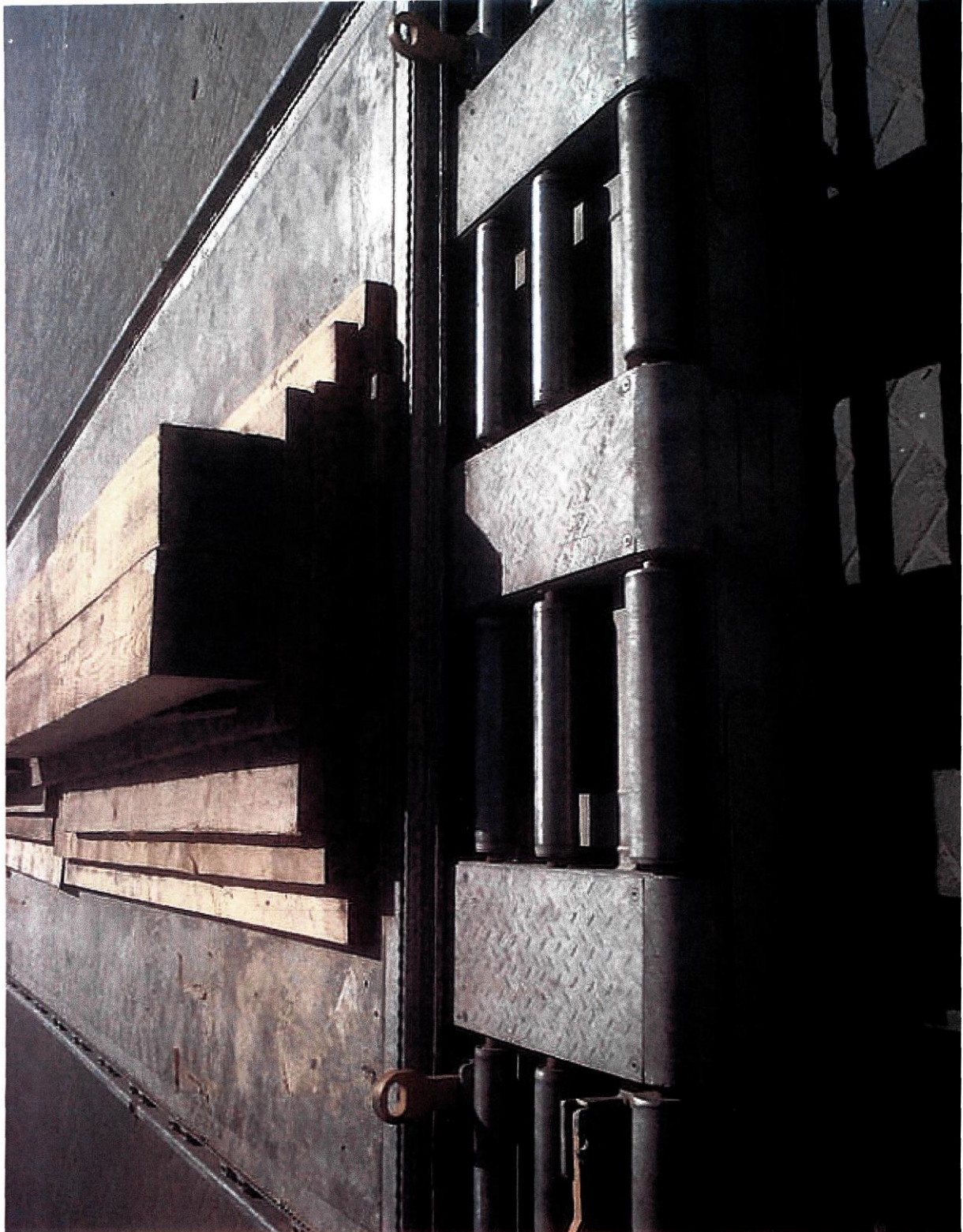


4	3	113	2.87	32075	12613	PGF 004	9	UN3166	DWC	AZI 1610. 6 Inch O/H
5	3	116	2.95	46880	18435	PGF 005	9	UN3166	DWC	AZI 1607. 4 Inch O/H
6	1	85	2.16	3720	1463				DWC	AZI 1620 60 Inches O/H at 8 Side
7	1	85	2.16	3820	1502				DWC	AZI 1621 60 Inches O/H at 8 Side
8	1	51	1.29	3520	1384				DWC	AZI 1633
9	1	51	1.29	3639	1431				DWC	AZI 1634
10	1	51	1.29	3441	1353				DWC	AZI 1632
11	2	85	2.16	3662	1440				DWC	AZI 1678
12	1	51	1.29	3581	1408				DWC	AZI 1680
13	1	66	1.67	4651	1829				DWC	AZI 1682 ( 9302190 & 930219043)
14	1	42	1.06	3161	1243				DWC	Turrets ( 930218850/9302188
15	1	38	9.66	3217	1265				DWC	Turrets ( 930218849/9302188
16	1	42	1.06	1509	686				DWC	Turrets (93021883:

235,751 LBS  
95,313 KGS











## 2.0 Second Email Chain

### Alfredo Gumbs

**From:** Vijayan Puthanpurayl ([REDACTED])  
**Sent:** Saturday, April 27, 2013 10:26 PM  
**To:** Mohamed Packiron; Alfredo Gumbs; groundops@nationalairlines.aero; [REDACTED]; Operations  
**Cc:** LoadPlanner-DWC; DWC\_Ops; CAPCON; FMC; FCC; DWC\_Ops; Bhaskhar Damodaran; Manesh K. Balakrishnan  
**Subject:** N949CA/REVISED LOAD PLAN  
**Attachments:** Dubai-20130329-00551.jpg; Dubai-20130329-00552.jpg; Dubai-20130329-00553.jpg; OAZI LOAD.tif

Team CAPCON,  
 Attached revised load plan for subject flight for the sector OAZI-DWC.  
 As discussed kindly advise OAZI team below PGF required proper shoring due to heavy weight.  
 PGF 1- 18647KG  
 PGF 2- 18031KG  
 PGF 5- 18435 KG  
 Attached Few Pics for proper shoring procedure and reference.

Thanks ,

V/r.  
 VIJAY  
 LOAD PLANNING  
 NATIONAL AIR CARGO -DWC  
 E-mail [REDACTED]  
 Mob- [REDACTED]

**From:** Mohamed Packiron  
**Sent:** Sunday, April 28, 2013 5:52 AM  
**To:** Alfredo Gumbs; groundops@nationalairlines.aero; lm@[REDACTED]; Operations; Willie Cortes  
**Cc:** 'LoadPlanner-DWC@nationalairlines.aero'; LoadPlanner-DWC; DWC\_Ops; CAPCON; FMC; FCC; Bagram; CampBastion; Ira Rafoth; Mission Planning (missions@nationalairlines.aero)  
**Subject:** PAYLOAD BREAK-DOWN FOR FLIGHT B747 / N949CA DTD 28 APR '13

Dispatch,

Please find the payload details for N949CA.. departing today.

FLIGHT NO 01								
28-Apr-13	B747	N949CA	NCR-510/ISF95AQ	LFLX	15:30	22:35	OAZI	NAL
29-Apr-13	B747	N949CA	ISF95AQ/NCR-948	OAZI	2:35	5:35	OMDW	NAL

#### LFLX – OAZI

#### Load details attached

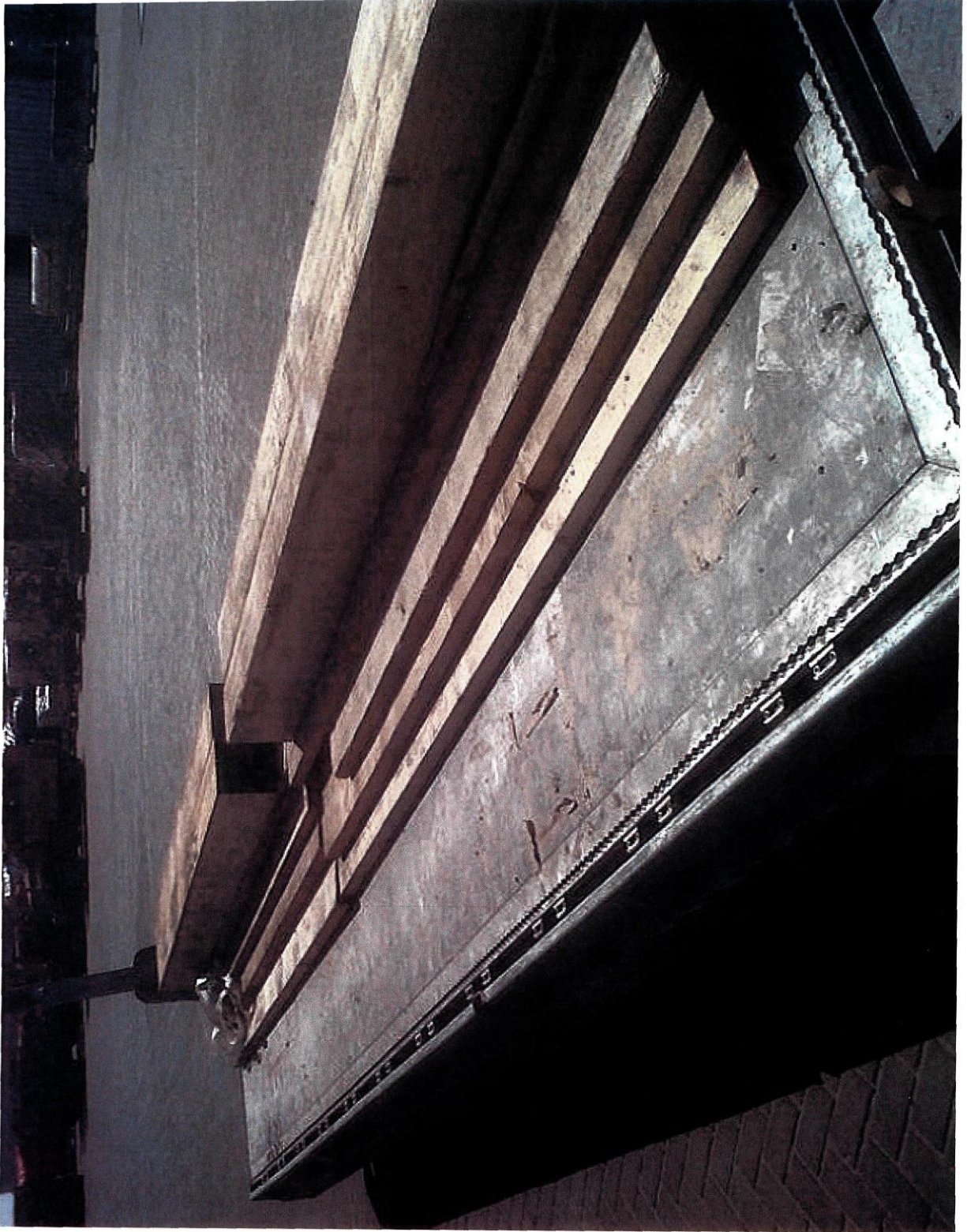
5 Stack x 463 L – 11200 kg  
 2 Stack x PGF – 5630 kg  
 5 X 20" Container – 43530 kg



6	1	85	2.16	3720	1463			DWC	AZI 1620 60 Inches O/H at 8 Side
7	1	85	2.16	3820	1502			DWC	AZI 1621 60 Inches O/H at 8 Side
8	1	51	1.29	3520	1384			DWC	AZI 1633
9	1	51	1.29	3639	1431			DWC	AZI 1634
10	1	51	1.29	3441	1353			DWC	AZI 1632
11	2	85	2.16	3662	1440			DWC	AZI 1678
12	1	51	1.29	3581	1408			DWC	AZI 1680
13	1	66	1.67	4651	1829			DWC	AZI 1682 ( 9302190 & 930219043)
14	1	42	1.06	3161	1243			DWC	Turrets ( 930218850/9302188
15	1	38	9.66	3217	1265			DWC	Turrets ( 930218849/9302188
16	1	42	1.06	1509	686			DWC	Turrets (93021883

**235,751** LBS  
**95,313** KGS

Mohamed Packiron (Nishard)  
 Capacity Control  
 NATIONAL AIR CARGO ME FZE  
 3<sup>rd</sup> Floor, Block B, West Wing 4  
 Dubai Airport Freezone  
 P.O.Box 54429, Dubai  
 Tel # : ~~971 4 2305504~~  
 Fax Line : ~~971 4 2306403~~















### 3.0 Third Email Chain

#### Alfredo Gumbs

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**From:** Vijayan Puthanpurayl [vputhanpurayl@nationalaircargo.com]  
**Sent:** Friday, April 26, 2013 9:15 AM  
**To:** CAPCON; Ranjit Ratnakaran; FMC  
**Cc:** LoadPlanner-DWC; DWC\_Ops  
**Subject:** RE: PAYLOAD N952CA/27th Apr

Dear All,

Please note subject flight OAZI/DWC sector Aircraft trim not very well (Tail Heavy) . Kindly inform OAZI to keep ready 4x463L stack pallet as ballast.  
May be we have to use ballast(7T) fuel also from OAZI ,please give heads-up to operator .

Thanks ,

V/r.  
VIJAY  
LOAD PLANNING  
NATIONAL AIR CARGO -DWC  
E-mail: vputhanpurayl@nationalaircargo.com  
Mob- 974 83634366

---

**From:** Ranjit Ratnakaran  
**Sent:** Friday, April 26, 2013 1:52 PM  
**To:** LoadPlanner-DWC; [LoadPlanner-DWC@nationalaircargo.com](mailto:LoadPlanner-DWC@nationalaircargo.com)  
**Cc:** CAPCON; FMC; Gayan Weeratunga; Roger Parcon  
**Subject:** PAYLOAD N952CA/27th Apr

Load Planners,

Please find the payload for tomorrow flight..

	B-747/N-952CA					
27-Apr-13	NCR-510/ISF50AQ	LFLX	14:25	21:30	OAZI	55000 KG ( Approx )
28-Apr-13	ISF50AQ/NCR-948	OAZI	1:30	4:30	OMDW	95500 KG

#### LFLX – OAZI

Approx weight :

5 Stack x 463 L – 15000 kg  
5 X 20” Container – 40000 kg

#### OAZI – OMDW ( Picture attached for 5 x PGF loads )

**OAI - DWC**

COUNT	Pal_Pos	Hght	METER	WT- LBS	WT- KGS	PLT_ID	HClass	UN_ID	AMD REF & FINAL DEST.	ADDIT. INFO
1	3	115	2.92	41023	18647	PGF 001	9	UN3166	DWC	AZI 1616. 4 Incl O/H
2	3	117	2.98	45853	18031	PGF 002	9	UN3166	DWC	AZI1613. 2 Inch O/H
3	3	115	2.92	31999	12583	PGF 003	9	UN3166	DWC	AZI 1611. 6 Inch O/H
4	3	113	2.87	32075	12613	PGF 004	9	UN3166	DWC	AZI 1610. 6 Inch O/H
5	3	116	2.95	46880	18435	PGF 005	9	UN3166	DWC	AZI 1607. 4 Inch O/H
6	1	85	2.16	3720	1463				DWC	AZI 1620 60 Inches O/H at 8 Side

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11	2	85	2.16	3662	1440				DWC	AZI 1678
12	1	51	1.29	3581	1408				DWC	AZI 1680
13	1	66	1.67	4651	1829				DWC	AZI 1682 ( 9302190 & 930219043)
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15	1	38	9.66	3217	1265				DWC	Turrets ( 930218849/9302188
16	1	42	1.06	1509	686				DWC	Turrets (93021883:
				<b>235,751</b>	<b>LBS</b>					
				<b>95,313</b>	<b>KGS</b>					

## 4.0 Fourth Email Chain

### Alfredo Gumbs

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**From:** Alfredo Gumbs [mailto:~~agumbs@nationalairlines.aero~~]  
**Sent:** Friday, April 26, 2013 6:16 AM  
**To:** Vijayan Puthanpurayl  
**Cc:** Gary Keys; Loadmasters; LoadPlanner-DWC  
**Subject:** RE: Heavy MRAP Vehicle Loadability

Dear Vijay,

That shouldn't be a problem. We just need to make sure we have enough ballast in the front to prevent the aircraft from tipping and for weight and balance.

Best regards,  
Alfredo

---

**From:** Vijayan Puthanpurayl [mailto:~~vijayan.puthanpurayl@nationalairlines.aero~~]  
**Sent:** Friday, April 26, 2013 5:00 AM  
**To:** Alfredo Gumbs  
**Cc:** gkeyse@nationalairlines; Loadmasters; LoadPlanner-DWC  
**Subject:** Heavy MRAP Vehicle Loadability

Dear Alfredo,

We are expecting 3xMRAP (18800 to 19000KG, Including ULD/Shoring) from OAZI on next NAL Flight rotation to DWC ,vehicles are built on sandwich pallet with support of enough shoring . Kindly let us know the Loadability .

In addition to these three vehicle we are looking two more vehicle weighing around 12000KG each on same flight.

Please let us know any additional precaution we need to take before confirming the load.

Appreciate you expertise regarding this matter.

Thanks ,

V/r.  
VIJAY  
LOAD PLANNING

NATIONAL AIR CARGO -DWC

E-mail ~~vijayan.puthanpurayl@nationalairlines.aero~~  
Mob- ~~91 98889 18000~~

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## 5.0 Fifth Email Chain

### Alfredo Gumbs

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**From:** Tharaneer Dharan Muthulingam [mailto:tharaneer.dharan@nationalairlines.aero]  
**Sent:** Wednesday, July 31, 2013 12:27 PM  
**To:** Alfredo Gumbs; Mohamed Packiron; Naveen Karunakaran  
**Cc:** Jeff Miller; Alan White; Sandra Mastaler; Vijayan Puthanpurayl  
**Subject:** RE: email copy request re loadplanning  
**Attachments:** N949CA/REVISED LOAD PLAN; RE: PAYLOAD N952CA/27th Apr; RE: PAYLOAD N952CA/27th Apr; RE: Heavy MRAP Vehicle Loadability

Hi Alfredo ,

The first three attachment's is the guidance given to capcon to advise OAZI team on the additional shoring requirement and we do not have any copy on the follow on communication which capcon would have had on this topic with OAZI team .The last attachment is the endorsement on the loadability and the airline opinion seeked to load this 18Ton + shipment on our flight. The guidance given by NAL to our load planners (last attachment) has been communicated to Capcon and was advised to brief OAZI on the requirement.

Hi Nishad / Naveen,

Would you please forward the communication that you had with OAZI to brief the above requirements.

Best Regards,

**Dharan Muthulingam**  
Operations Manager -DWC  
National Air Cargo Middle East FZE  
Agent Building #2, Logistics City , DWC- AMIA  
Jebel Ali, Dubai - U.A.E  
Landline - [REDACTED]  
E-Mail- [REDACTED]



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**From:** Alfredo Gumbs [mailto:agumbs@nationalairlines.aero]  
**Sent:** Wednesday, July 31, 2013 8:09 PM  
**To:** Tharaneer Dharan Muthulingam; Alan White; Sandra Mastaler; Vijayan Puthanpurayl; Bhaskhar Damodaran  
**Subject:** RE: email copy request re loadplanning

Dear Dharan,

Do you have any SOP that DWC would have sent to OAZI on the build-up of the vehicles? I see a couple of pictures of the shoring attached.

Best regards,  
Alfredo

---

**From:** Tharaneer Dharan Muthulingam [mailto:tharaneer.dharan@nationalairlines.aero]  
**Sent:** Tuesday, July 30, 2013 12:51 PM  
**To:** Alan White; Sandra Mastaler; Vijayan Puthanpurayl; Bhaskhar Damodaran

**Cc:** Alfredo Gumbs  
**Subject:** RE: email copy request re loadplanning

Hi Sandra ,  
Find attached the communications on load planning pertaining for N949CA.

Best Regards,

**Dharan Muthulingam**  
**Operations Manager -DWC**  
National Air Cargo Middle East FZE  
Agent Building #2, Logistics City , DWC- AMIA  
Jebel Ali, Dubai - U.A.E  
Landline - [REDACTED]  
E-Mail- [REDACTED]



---

**From:** Alan White  
**Sent:** Tuesday, July 30, 2013 6:54 PM  
**To:** Sandra Mastaler; Vijayan Puthanpurayl; Bhaskhar Damodaran; Tharaneer Dharan Muthulingam  
**Cc:** Alfredo Gumbs  
**Subject:** Re: email copy request re loadplanning

Dharan,

We have the email chains as reviewed earlier for the flight.

Regards,

Alan R. White  
Vice President Ground Ops Middle East  
National Air Cargo ME FZE  
Dubai World Central - Al Maktoum International Airport  
PO Box :54429  
Jebel Ali -Dubai, UAE  
Tel: [REDACTED]  
Fax: [REDACTED]  
Mobil [REDACTED]  
[www.nac.ae](http://www.nac.ae)

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**From:** Sandra Mastaler  
**To:** Vijayan Puthanpurayl; Bhaskhar Damodaran  
**Cc:** Alan White; Alfredo Gumbs  
**Sent:** Tue Jul 30 10:37:09 2013  
**Subject:** email copy request re loadplanning  
Hi VJ, Bhaskar – we are looking to gather all email chains with the loadplan done for the aircraft by the Loadplanning department/group.



Thank you.

**Sandra L. Mastaler**  
*Operations/Safety/Security*  
**National Airlines**  
**5955 T. G. Lee Blvd.**  
**Citadel II Building, Suite 200**  
**Orlando, FL 32822**  
Phone: [REDACTED]

E-mail: [REDACTED]

 **Please consider the environment before printing**

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## 6.0 Bastion Loading Photos<sup>1</sup>



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<sup>1</sup> Photos provided to the NTSB from National Airlines depicting Bastion loading of accident load.













