

Appendix A

Hazardous Materials Factual Report

Information Provided by OEA Aerospace, Inc.

Rancho Cordova, CA
DCA-00-MA-026

NOTES BY J. HENDERSON NTSB
REVIEWED BY DAVID HILL, SR SAFETY
HEALTH ENGINEER AND MARGARET KUTY,
ASSEMBLER INTERMEDIATE
DEA AEROSPACE, INC.
CLASS C

16 DETONATING FUSES 1.4B EXPLOSIVE
CALLED AN X-CORD
CONTAINS THE EXPLOSIVE HNS (HEXANITROSTILBENE)

SIZE ABOUT 2.19 grams PER CORD -
1/10" X 1/8" LONG TOTAL WEIGHT OF EXPLOSIVE 0.036 KG.
THE EXPLOSIVES WILL ~~BURN~~ ^{BURN, NOT} DETONATE WHEN
EXPOSED TO FIRE. IT TAKES AN INITIATOR TO
CAUSE DETONATION.

THE CORD IS USED TO BREAK THE WINDOWS
OF THE COCKPIT ON AN APACHE HELICOPTER. BEFORE
PILOT EVACUATION.

MANUFACTURED AND
THE ~~EXPLOSIVE~~ DETONATING FUSE WAS OFFERED
TO EMERY BY DEA AEROSPACE INC., FAIRFIELD,
CA. → DESTINED FOR SIKORSKY AIRCRAFT, JUPITER, FL.

THE DETONATING CORD IS SHIPPED UNDER A
DOTA ^{EXPLOSIVE} APPROVAL EX 9405016 ISSUED 1994

PACKAGE: 36" x 36" x 12" PLYWOOD BOX
SPEC 4D ^{WOODEN} BOX 4D/Y68/S/99/+AS0327

DAMAGE BOX ^{BROKEN OPEN AND} BURNED. ~~THE~~ ABOUT 1/4 OF THE DET FUSE
WAS BURNED. -



OEA AEROSPACE, INC.

A SUBSIDIARY OF OEA, INC.
POST OFFICE BOX 100 • FAIRFIELD, CA 94533-0100
TELEPHONE (707) 422-1880 • FAX (707) 422-3242

AMC/CLB/dkp
PACKING SLIP NO. 15397-1C

SIKORSKY AIRCRAFT CORP
MAIL STOP S204A
6900 MAIN STREET, P.O. BOX 9727
STRATFORD, CT 06615-9127

OEA ORDER No. 15397
CUST. P.O. No. P7958227
CONTRACT No. DAAJ09-91-C-A004

ORDER COMPLETE
 PARTIAL
SHIPMENT NO. 1

DATE: February 8, 2000

ITEM	QUANTITY	DESCRIPTION
		FUZES, DETONATING ————— 1.4B ————— UN0257 ————— PGII HANDLE CAREFULLY ————— KEEP FIRE AWAY
0001	4 PC	CANOPY SEVERANCE ASSEMBLY KIT CUST PN X0206-01808-101 CONSISTING OF: (4 EA) OEA PN 52216-9 REV F VL # 1 LOT NO. OAC00A001-004 15397-0001 SN'S: 15397-1 THRU 4 (4 EA) OEA PN 52216-10 REV F VL # 2 LOT NO. OAC00A001-004 15397-0001 SN'S: 15397- 1 THRU 4 (4 EA) OEA PN 52216-11 REV F VL # 3 LOT NO. OAC00A001-004 15397-0001 SN'S: 15397-1 THRU 4 (4 EA) OEA PN 52216-12 REV F VL # 4 LOT NO. OAC00A001-004 15397-0001 SN'S: 15397-1 THRU 4
	2 EA	CERTIFICATE OF COMPLIANCE

*CLB/dkp
2-8-00
email*

THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED PACKAGED, MARKED AND LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION, ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION

SHIP TO: (if other than above)

SIKORSKY AIRCRAFT
17900 BEELINE HIGHWAY
JUPITER, FL 33478

RECEIVED BY: _____

DATE: _____

*EMERY
Yellow Freight Per
RA*

VIA: UPS ACCT 34123E

Collect Prepaid

DATE SHIPPED/VIA 2-10-00 / EMERY
BILL OF LADING NUMBER 177607933-8
BOX SIZE(S)/P.O. NO. 36x36x41 / 31014
70 lbs.

conf. # 046151146





FOR INFORMATION OR RATES
 CALL 1-800-HI-EMERY (1-800-443-6379)
 http://www.emeryworld.com

DATE OF SHIPMENT

2-15-00

ORIGIN

SAC

SHIPMENT NUMBER

177 607 933 - 8



1 FROM - SHIPPER		Shipper's Emery Account Number 99078999	
From (Your Name) RICHARD D CURLEY		Phone Number (Very Important)	
Company Name KXKX OEA AEROSPACE		Dept. or Floor P	
Address 3530 BRANSCOMBE ROAD KXKX OEA HIGHWAY 12			
City FAIRFIELD		State/Prov. CA	Zip/Postal Code (Required) 94533
Shipper's Reference First Thirty Characters Will Appear On Invoice 15397-1C			
2 TO - CONSIGNEE		Consignee's Emery Account Number 610091591511	
Contact Name		Phone Number (Very Important)	
Company Name SIKORSKY AIRCRAFT		Dept. or Floor	
Address Emery Cannot Deliver to PO Box or PO Zip Codes 17900 BEELINE HIGHWAY			
City JUPITER,		State/Prov. FL	Zip/Postal Code (Required) 33478
Consignee's Reference First Twenty Characters Will Appear On Invoice		Country	

3 SERVICES		For Definition of Services "X" One Box International See Back of Air Waybill		*EXTRA CHARGES	
U.S., Puerto Rico, & Canada		Int'l Door-To-Door		Int'l Airport-To-Airport	
<input type="checkbox"/> NEXT FLIGHT	<input type="checkbox"/> SECOND DAY	<input type="checkbox"/> EXPRESS	<input type="checkbox"/> PREFERRED		
<input checked="" type="checkbox"/> 98:30	<input type="checkbox"/> DEFERRED	<input type="checkbox"/> STANDARD PLUS	<input type="checkbox"/> STANDARD		
<input checked="" type="checkbox"/> AM	<input type="checkbox"/> SATURDAY DELIVERY	Preferred and Standard Airtel Services			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> *CUSTOMS CLEARANCE REQUESTED	<input type="checkbox"/> *DELIVERY REQUESTED		

4 SHIPMENT DETAILS				DESCRIPTION	
Pieces	Length	Width	Height	DANGEROUS GOODS PER THE ATTACHED SHIPPERS DECLARATION.	
1	36	36	12		
TOTAL PIECES		TOTAL WEIGHT		kg (lb)	
1		70		kg (lb)	
SPECIAL INSTRUCTIONS					

HANDLING INSTRUCTIONS		*EXTRA CHARGES	
<input type="checkbox"/> *GOLD PRIORITY	<input type="checkbox"/> *CSS	<input type="checkbox"/> *SR	<input type="checkbox"/> *ODD
<input type="checkbox"/> *HOLD FOR PICKUP	<input type="checkbox"/> *SPECIAL DELIVERY	<input type="checkbox"/> *INSIDE DELIVERY	<input type="checkbox"/> *CONVENTION
AUTHY CONF #		*DANGEROUS GOODS	
		<input type="checkbox"/> *PERISHABLE	
		<input type="checkbox"/> *OTHER	

INTERNATIONAL CUSTOMER VALUE (Specify Currency)		INTERNATIONAL ONLY	
CONSIGNEE'S USE FOR CUSTOMS (REPRINTED AT HIS RISK BY Local Customs)		*INTERNATIONAL INSURANCE (Specify Currency)	
BROKER NAME/ADDRESS (Use only when International or Canadian Broker requested)		HARMONIZED CODE	
(Unless otherwise indicated Emery Customs Brokers to Clear)		COUNTRY OF MANUFACTURE	
BROKER PHONE NUMBER (See Code Required)			

5 METHOD OF PAYMENT		If No Form of Payment is Checked, the Shipper Shall Be Liable for Charges.	
<input type="checkbox"/> BILL SHIPPER	<input checked="" type="checkbox"/> BILL CONSIGNEE		
<input type="checkbox"/> SHIPPER'S CHECK RECEIVED	<input type="checkbox"/> FREE DOMICILE (Int'l Only)		
<input type="checkbox"/> BILL THIRD PARTY (Specify ACCOUNT)	Third Party Account Number (Specify for Third Party Only)		
<input type="checkbox"/> Bill of Exchange (Bill of Lading)			

6 TERMS AND CONDITIONS	
We agree that Emery's Terms and Conditions of Contract ("Terms") as set forth on the front and reverse hereof apply to this shipment.	
CHECK TO SHIPPER	Emery will collect Consignee's check in the amount shown at left, and Shipper assumes all related risks, including, but not limited to, non-payment, fraud and misrepresentation.
ONLY IN U.S. OR CANADA	
\$	

DECLARED VALUE AND LIMITS OF LIABILITY		*DECLARED VALUE	
\$		\$	
EMERY'S LIABILITY SHALL BE LIMITED TO THE HIGHER OF \$50.00 PER SHIPMENT OR \$0.50 PER POUND OF CARGO LOST OR DAMAGED, UNLESS YOU SPECIFY A HIGHER AMOUNT IN THE DECLARED VALUE BOX. EMERY SHALL IN NO EVENT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. IF THIS SHIPMENT INVOLVES INTERNATIONAL TRANSPORTATION, EMERY'S LIABILITY SHALL BE LIMITED TO \$9.97 PER POUND OF CARGO LOST OR DAMAGED UNLESS YOU SPECIFY A HIGHER AMOUNT IN THE DECLARED VALUE BOX AND THE WARSAW CONVENTION MAY GOVERN AND THEREBY LIMIT OUR LIABILITY.			
For International and Canadian shipments, Exporter understands that commercial invoices and other special documents may be required, and authorizes Emery to act as Forwarding Agent for export control and customs purposes.			

SHIPPER'S AUTHORIZATION AND SIGNATURE		Date	
X <i>[Signature]</i>		2/5/00	

SN- 177 607 933 - 8

NON-NEGOTIABLE AIR WAYBILL 60001-46 (2/97)
 I I I I I USA EXECUTIVE OFFICES: REDWOOD CITY, CA 94065

SHIPPER'S COPY - 1

SHIPPER'S DECLARATION FOR DANGEROUS GOODS

(Provide at least two copies to the airline.)

Shipper: **OEA AEROSPACE, INC.**
 3530 BRANSCOMBE ROAD
 FAIRFIELD CA, 94533-0659
 (707) 422-1880

Air Waybill No. 1776079338
 Page 1 of 1 Pages
 Shipper's Reference Number (optional) 15397-1C

Consignee: **SIKORSKY AIRCRAFT**
 17900 BEELINE HIGHWAY
 JUPITER, FL 33478



Two completed and signed copies of this Declaration must be handed to the operator

WARNING
 Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for (delete non-applicable)

Airport of Departure

~~XXXXXX~~ CARGO
~~XXXXXX~~ AIRCRAFT
~~XXXXXX~~ ONLY

Airport of Destination

Shipment Type (delete non-applicable)
 NON-RADIOACTIVE ~~XXXXXX~~

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification					Quantity and Type of Packing	Packing Inst.	Authorization
Proper Shipping Name	Class or Division	UN or ID No.	Pack-ing Group	Subsi-dary Risk			
Fuzes, detonating	1.4B	UN0257			1 PLYWOOD BOX x 0.036 kg	141	CA- EX-9405016 Attached.

Additional Handling Information
 PACKAGED PER ICAO/IATA.
 "CARGO AIRCRAFT ONLY"

Emergency Response Telephone Number: (707) 422-1880

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Name/Title of Signatory
 RICHARD D. CURLEY, SUPERVISOR
 Place and Date
 FAIRFIELD, CA 2-15-00
 Signature
 (see warning above)



U.S. Department
of Transportation
Research and
Special Programs
Administration

400 Seventh Street, S.W.
Washington, D.C. 20590

The US Department of Transportation
Competent Authority for the United States

CLASSIFICATION OF EXPLOSIVES

Based upon a request by A. T. Holzman on behalf of ET, Inc. (formerly Explosive Technology, Inc.), P.O. Box XX, Fairfield, California, the following items are classed in accordance with Section 173.56, Title 49, Code of Federal Regulations (49 CFR).

U.N. PROPER SHIPPING NAME AND NUMBER:

Charges, shaped, flexible, linear, UN0287

U.N. CLASSIFICATION CODE: 1.4D

<u>REFERENCE NUMBER</u>	<u>PRODUCT DESIGNATION/PART NUMBER</u>
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EX-9405017	52192
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*** The following is provided to facilitate transition to the UN system ***

Classification under Sections 173.86 or 173.114a (49 CFR):

DOT DESCRIPTION/COMMERCIAL NAME: Flexible linear shaped charge, metal clad

DOT HAZARD CLASSIFICATION: Class C explosive

.....

U.N. PROPER SHIPPING NAME AND NUMBER:

Charges, shaped, flexible, linear, UN0288

U.N. CLASSIFICATION CODE: 1.1D

<u>REFERENCE NUMBER</u>	<u>PRODUCT DESIGNATION/PART NUMBER</u>
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EX-9405018	52218
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*** The following is provided to facilitate transition to the UN system ***

Classification under Sections 173.86 or 173.114a (49 CFR):

DOT DESCRIPTION/COMMERCIAL NAME: Detonating fuse

DOT HAZARD CLASSIFICATION: Class A explosive

.....

Holzman, ET, Inc. (formerly Explosive Technology, Inc.)

U.N. PROPER SHIPPING NAME AND NUMBER: Fuzes, detonating, UN0257

U.N. CLASSIFICATION CODE: 1.4B

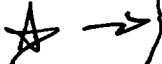
<u>REFERENCE NUMBER</u>	<u>PRODUCT DESIGNATION/PART NUMBER</u>
EX-9404178	51912
EX-9405016	52216

*** The following is provided to facilitate transition to the UN system ***

Classification under Sections 173.86 or 173.114a (49 CFR):

DOT DESCRIPTION/COMMERCIAL NAME: Detonating fuse, Class C

DOT HAZARD CLASSIFICATION: Class C explosive



U.N. PROPER SHIPPING NAME AND NUMBER: Fuzes, detonating, UN0410

U.N. CLASSIFICATION CODE: 1.4D

<u>REFERENCE NUMBER</u>	<u>PRODUCT DESIGNATION/PART NUMBER</u>
EX-9405013	52214

*** The following is provided to facilitate transition to the UN system ***

Classification under Sections 173.86 or 173.114a (49 CFR):

DOT DESCRIPTION/COMMERCIAL NAME: Detonating fuse, Class C

DOT HAZARD CLASSIFICATION: Class C explosive

Approved by:

Alan I. Roberts
Associate Administrator
for Hazardous Materials Safety

MAY 5 1994

(DATE)

OPERATION 17. PACKAGE

Net Explosive Weight of each unit - 3 grams

Hazard Classification of each unit - 1.4B

Room Location and Limits: OEA Aerospace Assembly 4C, 4D; 1 pound

Maximum Number of Assemblies: 150 units

Number of Operators: 6

- 10 Using Cable Ties, PN 60559-1, secure initiation block to Cardboard Sheet, PN S35x17, or equivalent. Refer to Figures 13 and 14.
- 20 Using cable ties, secure the canopy severance assembly to the cardboard.
- 30 Seal 2 Screws, PN NA0069-030004, and 2 Washers, PN AN960C5, in a clear Polybag, and attach to the cardboard sheet.
- 40 Seal each cardboard, with canopy severance assembly attached, in clear polyethylene Tubing, PN 60481-1-18, or equivalent.
- 50 Notify shipping to pack in Wooden Shipping Container, PN B36x36x12P, or equivalent.

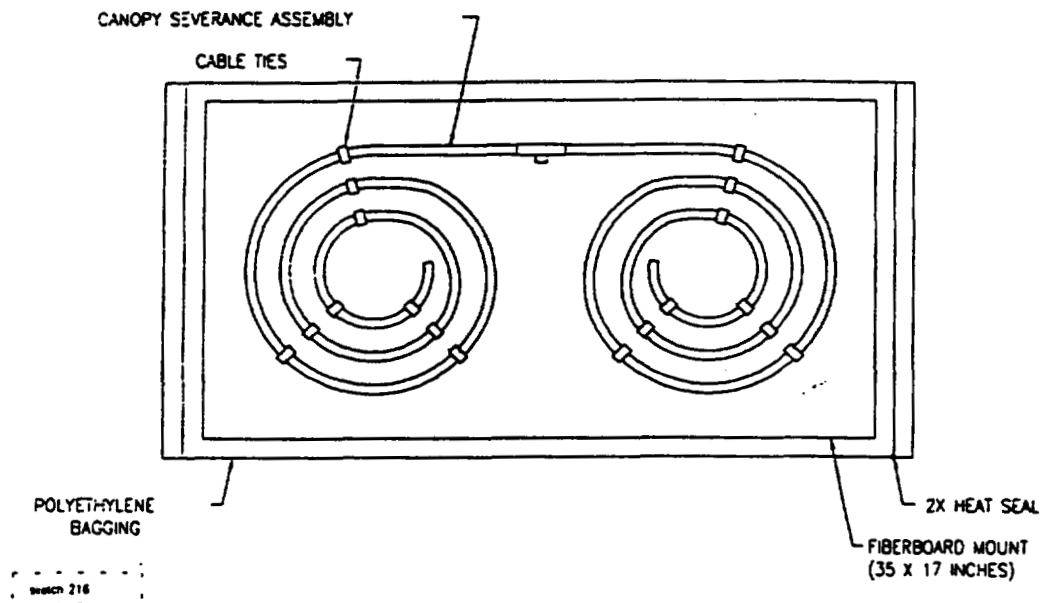


Figure 13. Positioning Assemblies on Cardboard for Shipping

3378A PBI

Shipper ~~GEA~~ AEROSPACE, INC.
3530 BRANSCOMBE ROAD
FAIRFIELD CA, 94533-0859
(707) 422-1880

Air Waybill No. 177807933-8
Page 1 of 1 Pages
Shipper's Reference Number 15397-1C
(optional)

Consignee SIKORSKY AIRCRAFT
17900 BEELINE HIGHWAY
JUPITER, FL 33478



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TRANSPORT DETAILS

This shipment is within the limitations prescribed for (delete non-applicable)
Airport of Departure

PASSENGER	CARGO
UNDOCKED	AIRCRAFT
XBOSKATX	ONLY

 SACRAMENTO

Airport of Destination FORT LAUDERDALE
Shipment Type (delete non-applicable)
NON-RADIOACTIVE ~~XRADIOACTIVE~~

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification					Quantity and Type of Packing	Packing Inst.	Authorization
Proper Shipping Name	Class or Division	UN or ID No.	Pack-ing Group	Subsi-dary Risk			
Fuzes, detonating	1.4B	UN0257			1 PLYWOOD BOX x 0.000 kg ↓ 0.036 kg	141	CA-EX-9405018 Attached.

Additional Handling Information: PACKAGED PER ICAO/IATA. "CARGO AIRCRAFT ONLY"
Emergency Response Telephone Number: (707) 422-1880

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Name/Title of Signatory
RICHARD D. CURLEY, SUPERVISOR
Place and Date
FAIRFIELD CA 2-15-00
Signature