

Docket No: SA-516

Exhibit No: 3-H

**NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.**

P. FAA Chronological Summary of Flight 2 pages

Q. Special Use Airspace 3 pages

R. Flight Progress Strips 5 pages

S. Conflict Alert 1 page

T. Additional Boston ARTCC Data 3 pages

U. Megadata Corporation 1 Page

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
REPORT OF AIRCRAFT ACCIDENT

(Continuation Sheet)

REPORT DATE
August 8, 1996

ZBW-ARTCC-126

NAME OF REPORTING FACILITY
Boston (ZBW) ARTCC

14. CHRONOLOGICAL SUMMARY OF FLIGHT (Including control or other services provided by ATS facilities, and emergency action taken.)
July 18, 1996

**ALL ITEMS BELOW ARE COORDINATED UNIVERSAL
TIME UNLESS OTHERWISE SPECIFIED**

- 0018 - The Kennedy Tower controller cleared Lifeguard Trans World Airlines 800 (TWA800) for takeoff on Runway 22R.
- 0019 - The Kennedy Tower controller instructed TWA800 to contact New York Departure on frequency 135.9.
- 0020 - The pilot of TWA800 called New York (Kennedy) Departure climbing to 5,000 feet. The Departure controller radar identified TWA800 and issued a climb to 11,000 feet.
- 0022 - The Departure controller issued TWA800 a turn for climb and traffic. The Departure controller issued TWA800 the traffic.
- 0023 - The Departure controller instructed TWA800 to proceed direct to the BETTE intersection and then issued TWA800 a frequency change to Boston ARTCC frequency 132.2.
- 0024 - The pilot of TWA800 reported on the Boston ARTCC SARDI/ERICK sector frequency, the radar controller (R32) cleared TWA800 to climb and maintain 13,000 feet.
- 0025 - R32 queried the pilot of TWA800 of his rate of climb. TWA800 stated that his rate of climb would be approximately 2,000 feet a minute until he accelerated through 10,000 feet. R32 cleared TWA800 to Flight Level 190 and instructed the pilot to expedite climb through 15,000 feet.
- 0026 - R32 amended TWA800's climb clearance to 13,000 feet.
- 0028 - R32 issued TWA800 traffic at 1 o'clock, 7 miles, 1,000 feet above, a Beech 1900.
- 0030 - The traffic was no longer a factor for TWA800. R32 issued TWA800 a climb clearance to 15,000 feet, the pilot acknowledged.
- 0031 - The pilot of Stinger Bee 507 (BBE507) reported seeing an explosion. R32 questioned BBE507's transmission. Transponder returns on TWA800 were lost at an altitude of 13,700 feet. Primary radar targets continued.
- 0032 - The pilot of BBE507 stated that he just saw an explosion at approximately 16,000 feet. The pilot of Alitalia 609 (AZA609) confirmed the report, stating that the explosion happened just ahead of his position. The pilot of Virgin 009 (VIR009) also confirmed an explosion at his 9 o'clock position and 5 to 6 miles away. R32 confirmed the transmission and issued a frequency change to VIR009. R32 initiated a call for TWA800, no reply was received.
- 0033 - An unknown pilot volunteered to investigate the explosion if given the latitude and longitude. R32 called again for TWA800, with no reply. R32 instructed TWA800 to ident. R32 questioned BBE507 about the explosion report. BBE507 verified that the explosion was at 11 o'clock and 5 miles. AZA609 reported that he was right overhead the explosion, and issued a position report. BBE507 reported that his airplane was directly over the site where the aircraft went into the water. An unknown transmission reported 19 miles on the 238 radial from Hampton VORTAC (HTO). Primary radar returns in the vicinity were no longer observed.
- 0034 - R32 initiated a call for TWA800, with no reply. On the Hampton sector frequency the pilot of Delta 9295 (DAL9295) questioned the radar controller (R31) about burning in the water. R31 requested DAL9295 to verify that he saw something in the water. DAL9295 replied that there was a big fire below him.

P-1

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
REPORT OF AIRCRAFT ACCIDENT**
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ZBW-ARTCC-126

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14. CHRONOLOGICAL SUMMARY OF FLIGHT (Including control or other services provided by ATS facilities, and emergency action taken.)

0037 - R32 instructed BBE507 to change frequency to 133.05. BBE507 inquired as to whether or not there was anything else that he could do. R32 requested BBE507 to confirm his previous information regarding the explosion, which BBE507 did. R32 requested BBE507 to return to this frequency if he remembered anything else.

0038 - United 2 (UAL2) questioned R32 on the position of the crash. R32 replied that UAL2 was right above the site. UAL2 stated that it was still burning, described it as bright red with smoke. R32 questioned the report and UAL2 repeated offering latitude and longitude information which was accepted and received. UAL2 was instructed to change frequency to 124.52.
ZBW Supervisory Traffic Management Coordinator in Charge began emergency accident notification.

0040 - USA1231 reported to R31 that he was receiving an ELT signal.

NO MORE FOLLOWS

P-2

Q

WARNING AND RESTRICTED AREAS INFORMATION LOG

17/18 JULY, 96

DATE-TIME-ALTITUDES OF AVAILABILITY FOR FAA USE

W-105	A/C/O/E AVBL 760 UNTIL 181230
WAS	B- AVBL UNTIL 182359
W-506 SAMS: <input type="checkbox"/>	AVBL - UFN
W-106	AVBL UNTIL 182359
WAS	
W-107	AVBL UNTIL 181230
WAT	
W-108	AVBL ^{7110 UNTIL} FROM 172300 ^{THEN ALL ACFT} UNTIL 181100
WAS	
W-386	AVBL 7240 FROM 180001 UNTIL 181100
WAE	
ABERDEEN	ACTIVE UFN AVBL 7100 UNTIL 181100
R-4001	100' UNTIL 191100
RAA	
CAMP DAVID	ACTIVE W/O RES - UFA
R-4009	
WARREN GROVE	AVBL UNTIL 181230 191230
R-5002	AVBL 1650-1830
RAB	
<input checked="" type="checkbox"/> ZDC HAS	
INDIANTOWN GAP	AVBL FROM 172051 UNTIL 181244
R-5802/KIOWA	
RAD	

Q-1

R015060
PRIORITY

* U N C L A S S I F I E D *

PATUZYUW RUEOMCC0750 1981914-UUUU--RUEDJKA.
ZNR UUUUU
ZUI RUCOMAR0328 1981807
P 161807Z JUL 96 ZYB
FM FACSFAC VACAPES OCEANA VA//OAC//
TO RUEDJKA/FAA NEW YORK ARTCC RONKONKOMA NY//MOS//
BT
UNCLAS //N03722//
MSGID/GENADMIN/FACSFAC VACAPES//
SUBJ/ALTRV APREQ TANGO-BILLY/7//
REF/A/TEL/FFVC/16JUL96//
AMPN/PHONCON BTWN FFVC OAC/MS COSBY AND FAA ZNY/MR DOMBROWSKI//
POC/J. COSBY/FFVC OAC/FFVC/-/TEL:DSN 433-1233
/TEL:COMM 804-433-1233//
RMKS/1. REQUEST STATIONARY ALTRV TANGO-BILLY SFC TO FL100 WITHIN
3950N 7210W, 3950N 7045W, 38N 7045W, 38N 7210W (EXCLUDING WARNING
AREAS) FROM 180100Z TO 180700Z JUL 96.
2. ALTRV APVD BY REF A, NO REPLY REQUIRED.//
BT
#0750

JP

DELIVER TO:

TOR:161937Z JUL 96 * U N C L A S S I F I E D *

Q2

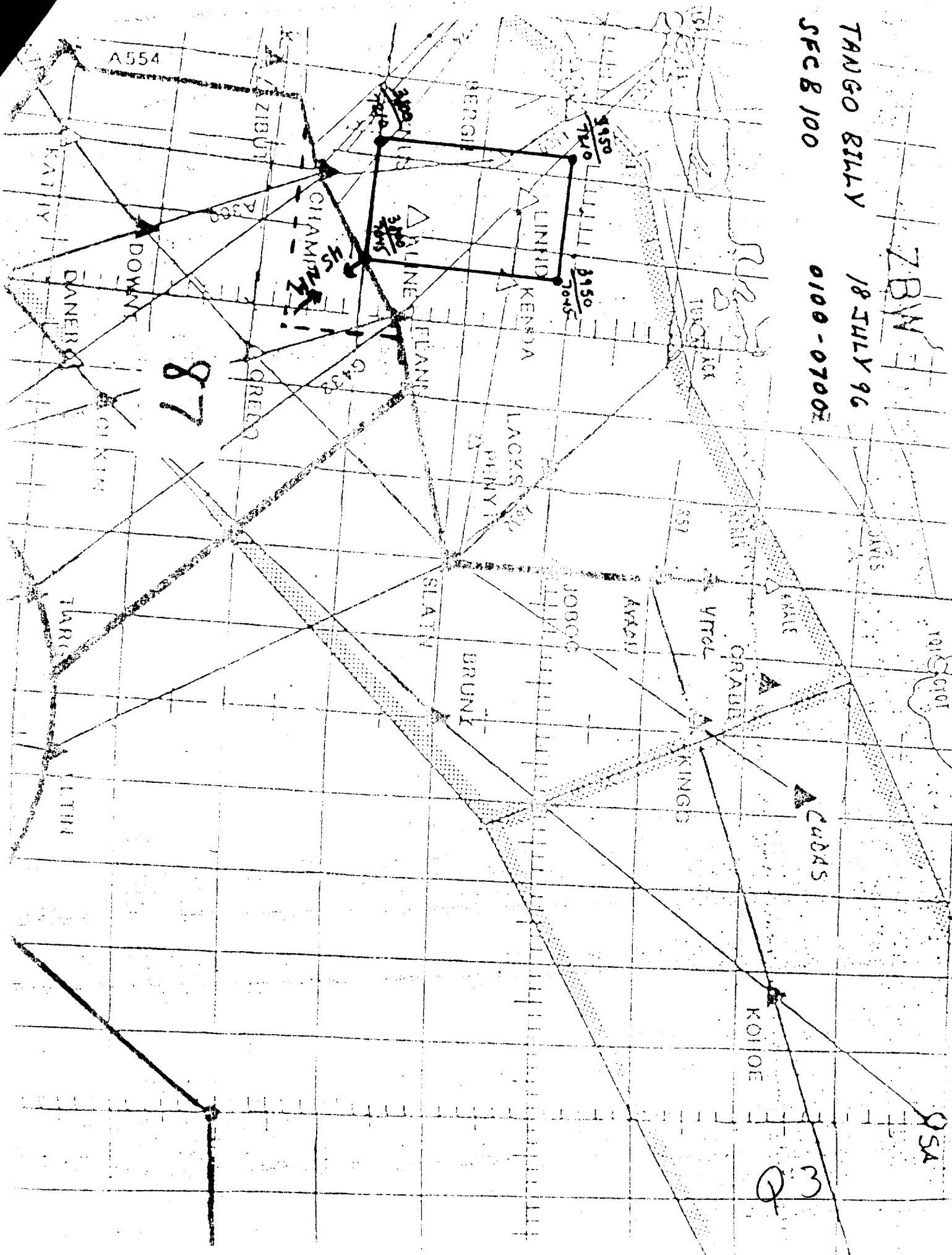
ZBNW

TANGO BILLY 18 JULY 96

SFC B 100 0100-0700Z

OSA

Q3



JFK ATCT 7/17/96

TWA 800

DEPARTURE FLIGHT PROGRESS STRIP

N1WA800
H/B747/R
596

2633
P2300
330

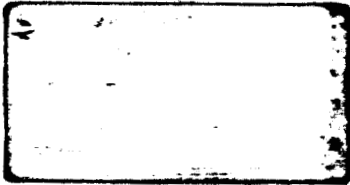
KJFK
J

ACK

305
KJFK BETTE BETTE***LFPG
OICAO BRADD/N0491F350 V***

528 P02 JUL 20 1996 11:20

5165632988 ESP



R-1

(A)

STRIP N90 (N.Y. TRACON)

TWA800
H/B747/R
596

7633
7633
330

KJEK
B

ACK
KJEK BETTER HELI***LPG
OICAO BRADD/N0491F350 V***

LIFEGUARD

A-2

USA217	SWL	00 36	290	CLT. ORF J174 HTO GREENI PVD	2237
T/B73F/F T432 G419 980 ³³ 01	0006				
		HTO			

VVAT450	4 PVD 323 002 0014	00 26	200	NHZ. ENE 165035 HTO J121 A300 BERGH	
P3/M T330 G318 006 ³³ 14				ONEG TNSP	
		HTO			

VIR009	TRAIT	00 31	350	PARCH N264AJFK---FOXEX./. ENE4 JFK	6720
B/B747/R M084 G456 670 ³³ 05	0025		0027	O ELL	*ZCN
		CCC			

ASH5523			↑	TMU V58 TRAIT V139 HTO GON TMU V58 TRAIT V139 DRIFT V312 00D PHL	7311
T/BE02/A T260 533 ³³ 01				120	RVF NC+ GOF ZCN
		GON P0000			

ZBW RISHR STRIP'S #1

P-3

TWA800
H/B747/R
T489
153³² 01

LIFE
KJFK P2301

330

KJFK BETTE1 BETTE
ACK BRADD N61B VIXUN
NATZ 5000N/04000W
NATZ 5100N/03000W
NATZ KENUK***LFGP
OICAO BRADD/N0491F35
0 VIXUN/M084F350 50*

2633

BBE507
B737/A
T445 G417
487³³ 04

1 SEY
00 29
0024
HTO

240
16

BOS. SEY HTO V139
MANTA V276 ARD TTN

1346

TWA842
H/B747/R
T490
940³² 01

440
0819
PC001
KJFK P2231

193

~~KJFK BETTE1 BETTE
ACK BRADD N61B VIXUN
NATZ 5100N/03000W
NATZ KENUK UN501
TAKAS UN490***LIMC
OICAO VIXUN/M084F370
51N030W/M084F390 K*~~

~~1500~~
3404

AZA609
H/B767/R
T469
839³² 01

KJFK P0001

197

KJFK BETTE1 BETTE
ACK BRADD N61B VIXUN
NATZ 5000N/01500W
NATZ KENUK UN501
TAKAS UN490***LIRF
ICAO VIXUN/M080F350
50N015W/M080F370 K*

1547

TWA900
H/B767/R
T461
975³² 01

KJFK P2356

197

KJFK BETTE1 BETTE
ACK WHALE N31B BANCS
4600N/05000W 4700N/
04000W 4500N/03000W
4200N/02000W***LPPT
OICAO BANCS/M080F370
DETOX/N0458F370 EE*

3004

23w FLIGHT STRIPS #2

R-4

VVAT450
P3/A
T330
006 16 01

NHZ P2330
200

NHZ ENE BOS JFK
JANNA BERGH
HTO J121 A300
HTO BERGH
200 QVFR DLA 4+00
3567
NHF PWF
NHF NHF

VVAT450
P3/A
T330 G324
006 16 10

3 REVER 00 16
0005
200
ENE

NHZ./ J55 J121 A300
BERGH
3567
ONEG TNSP

VVAT450
P3/M
T330
006 16 11

23 57
200
ENE 165/035

BOSOX
093
036
NHZ./ ENE165035 HTO
J121 A300 BERGH
ONEG TNSP

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages 1

To CHRIS SOUCY	From ZBW QA
Dept./Agency ATA-110 40 ZNY	Phone #
Fax #	Fax #

NSN 7840-01-317-7966 5099-101 GENERAL SERVICES ADMINISTRATION

ZBW Flight Strips # 3

A-5

AM

From DART Extraction showing Conflict Alert between TWA800 and ASH5523:

002607.2	TWA800	153	PVD 32P	O	FDB-O	TWA800	PS=FREE	FORCE=Y	BLINK=ALL	DBX#=C139
						190T:01	LD= S	DISPL=Y	VEL= 4.75, 3.00	
						153 291	LL= C	ATN= 2	COORD=222.00,149.62	
002637.2			PVD 32P	N	ALERT	CONFLICT ALERT	FORCE=Y	BLINK=NONE	COORD= 672, 365	TAB#=C040
002607.2			PVE 32P	N	ALERT	ASH5523 TWA800	FORCE=Y	BLINK=NONE	COORD= 672, 353	TAB#=C127
002655.2	TWA800	153	PVD 32P	O	FDB-O	TWA800	PS=FLAT	FORCE=N	BLINK=NONE	DBX#=C139
						130T:18	LD= S	DISPL=Y	VEL= 5.25, 0.25	
						153 311	LL= CI	ATN= 2	COORD=226.43,149.81	
002655.2	ASH5523	533	PVE 32P	O	FDB-O	ASH5523	PS=FLAT	FORCE=Y	BLINK=B	DBX#=C116
						140C	LD= NW	DISPL=Y	VEL= 4.25, 1.75	
						5337272	LL= C	ATN= 2	COORD=247.87,155.87	

From NTAP Extraction showing closest proximity between TWA800 and ASH5523:

LIST3 - LIST OF PLOT SYMBOLS IN TIME SEQUENCE WITH LAT/LONG CONVERSION

SYM	CODE	ALT	HRMM	SS	COORD.	COORD.	LATITUDE	LONGITUDE
N	731	140	0028	47	242.6875	148.6875	40 32 01N	072 54 11W
N	731	139	0028	59	242.2500	147.9375	40 31 16N	072 54 39W
S	2633	131	0028	59	239.8750	151.0000	40 34 22N	072 57 47W

Conflict Alert between TWA800 and ASH5523 begins at 0027:07.2 UTC, Conflict Alert ends when datablocks no longer "BLINK=ALL" at 0026:55.2 UTC

Closest proximity between TWA800 (code 2633) and ASH5523 (code 7311) is at 0028:59 UTC of 800 feet and 3.9 nautical miles (Do Pythagorean equation between X/Y's)

All originals on file at Boston ARTCC.

S

ZBW-ARTCC-126

for
BOSTON ARTCC

ACID:

TW800

TWA800

DATE: 7/18/96

The order and number of calls will be determined by the situation involved.

Boston ARTCC

	Phone Number	Time	Initials	
			Caller	Recipient
Airport Emergency Equipment	See Attachment			
Additional Emergency Equipment	See Attachment			
Search and Rescue - AFRCC - Langley AFB	DSN 574-8112 (800) 851-3051	0030	WL	BM
Washington Operations Center ₁	Conference Thru ROC	0030	WL	MJ
Region Operations Center (ROC)	(617) 238-7001	0030	WL	MJ
FSDO/ACDO/GADO-As Appropriate	Conference Thru ROC	0030	WL	MT
Aviation Weather - ZBW CWSU or AFSS		0030	WL	JS
Military Authority	See Attachment CG	0030	ZB	RDKA
Airport Authority	See Attachment RCC	0030	ZB	metalk
Airway Facilities Sector Manager	THRU System Engineer	0030	WL	RF
Aircraft Operator	TWA	0055	WL	Andre
Facility Manager - ZBW-1/Yuknewicz ZBW-2/DiMartino	(603) 673-3353 or Pager 603-625-3786 (603) 424-8287	0045	WL	BY
Area Office - AT Division Duty Officer	Thru ROC	0030	WL	MJ
Police	See Attachment			
NTSB	Thru Washington Comm		CTA	
National Weather Service Tunton, MA	See Attachment 603-823-1980	0129	EG	RP
Assistant Manager, Quality Assurance - Heins - DiMartino	(603) 472-7172 or Pager 603-625-7484	0040	WL	DD
NATCA Facility Representative	Stetz	0040	WL	DZ
Appropriate Area Manager - Area A+B/Michael Area C+E/McEwen Area D/Schwarz	(603) 472-8556 (603) 456-2599 (603) 891-0224	0113	EG	QU

¹ Accidents requiring telephone notification to Washington shall be made immediately following notification for emergency equipment and/or search and rescue.

T-1

ZBW-ARTCC-126

PERSONNEL STATEMENT

**FEDERAL AVIATION ADMINISTRATION
BOSTON AIR ROUTE TRAFFIC CONTROL CENTER**

July 25, 1996

The following is a report concerning an accident involving TWA800, 23 miles SW Hampton, New York, at approximately 0031 UTC, on July 18, 1996.

My name is Lori P. Siebert, (RE). I am employed as an Air Traffic Control Specialist by the Federal Aviation Administration at the Boston Air Route Traffic Control Center (ARTCC), Nashua, New Hampshire.

During the period of 1700 UTC on July 17, 1996 to 0230 UTC on July 18, 1996, I was on duty in the Boston ARTCC. I was working the Sardi sector, radar position from 0013 UTC to 0026 UTC.

TWA800 checked on frequency climbing to eleven thousand feet. I issued further climb to this aircraft to thirteen thousand. Shortly after this clearance I asked TWA800 his rate of climb. He acknowledged two thousand feet per minute, and that the rate would taper off as he picked up his speed. I issued a further climb to this aircraft to flight level 190. It was at this time that I was relieved from position.

The operational equipment at the time of the accident was not noted and is therefore unknown.

Lori P. Siebert

Lori P. Siebert
Boston ARTCC

+ - 2

ZBW-ARTCC-126

PERSONNEL STATEMENT

**FEDERAL AVIATION ADMINISTRATION
BOSTON AIR ROUTE TRAFFIC CONTROL CENTER**

July 18, 1996

The following is a report concerning an accident involving TWA800, 23 miles SW Hampton, New York, at approximately 0031 UTC, on July 18, 1996.

My name is David W. Allen (VI). I am employed as an Air Traffic Control Specialist by the Federal Aviation Administration at the Boston Air Route Traffic Control Center (ARTCC), Nashua, New Hampshire.

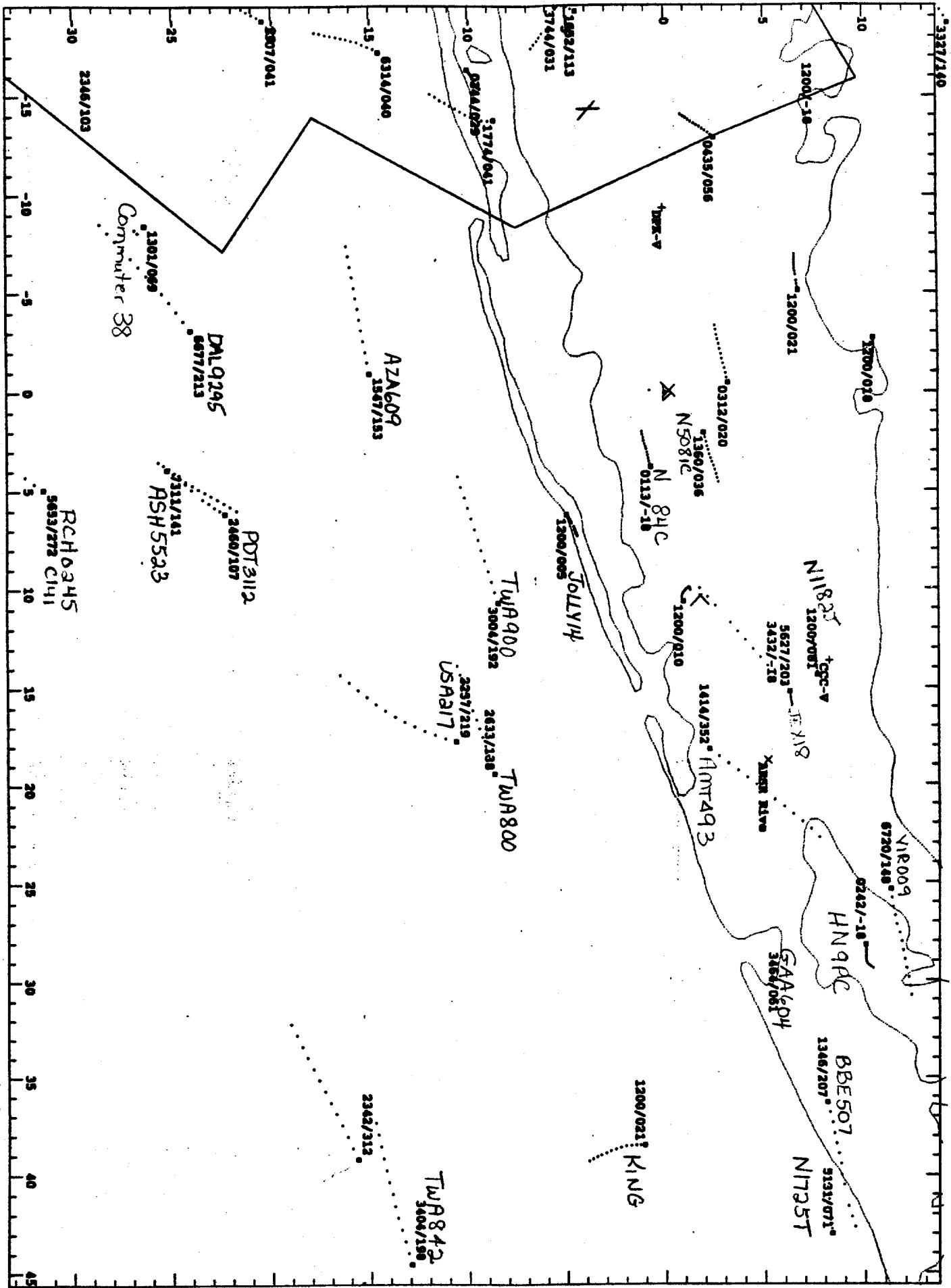
During the period of 1730 UTC on July 17, 1996 to 0500 UTC on July 18, 1996, I was on duty in the Boston ARTCC. I was working the Sardi/Erick radar position from 0026 UTC to 0057 UTC.

TWA800 departed John F. Kennedy airport eastbound. I cleared TWA800 to maintain fifteen thousand feet. BBE507 was southwestbound descending through eighteen thousand to maintain sixteen thousand feet. BBE507 made the first transmission reporting a visual sighting of an explosion while approximately 5 miles southwest of Hampton VORTAC. VIR009 reported a visual sighting of an explosion shortly afterwards while approximately 5 miles east of the Calverton VORTAC. I solicited a response from TWA800, asking the pilot if he heard me and to squawk ident. TWA800 did not respond to my transmissions.

The operational equipment at the time of the accident was not noted and is therefore unknown.


David W. Allen
Boston ARTCC

+ - 3



(12)

4-1