

Factual Report - Attachment 2  
Aircraft Accident Package

**AIR TRAFFIC CONTROL**

ERA19FA188

**ORIGINAL  
AIRCRAFT ACCIDENT PACKAGE  
19-001-ZDC  
N709CH, P46T/G  
June 7, 2019, 1731 UTC  
Destroy: June 7, 2024**

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SECTION 2.  
FAA Form 8020-6, Report of Aircraft Accident. and  
FAA Form(s) 8020-6-1, Report of Aircraft Accident (Continuation Sheet)

FAA Form 8020-6. Report of Aircraft Accident

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		REPORT DATE July 22, 2019	REPORT NO. 19-001-ZDC				
<b>REPORT OF AIRCRAFT ACCIDENT</b>		NAME OF REPORTING FACILITY Washington ARTCC (ZDC)					
1. AIRCRAFT IDENTIFICATION AND TYPE N709CH, P46T	2. DATE/TIME OF ACCIDENT (UTC) June 7, 2019; 1731 UTC	3. LOCATION OF ACCIDENT: CITY, STATE (MAND) Nashville, NC					
4. NATURE OF ACCIDENT Aircraft entered area of moderate/severe precipitation and crashed.		LATITUDE/LONGITUDE (OPL) N35 58 29.1100 W077 57 55.6700					
		5. TYPE OF FLIGHT IFR Flight Plan					
6. FLIGHT CREW	NAME	POSITION	ADDRESS (CITY AND STATE)	UNINJURED	INJURED	FATALITY	UNKNOWN
	Gregory Boll	Pilot	Naples, FL			X	
7. PASSENGER DATA	NUMBER ABOARD 3	NUMBER UNINJURED 0	NUMBER INJURED 0	NUMBER FATALITIES 3			
8. AIRCRAFT DAMAGE Destroyed			9. PROPERTY DAMAGE Unknown				
10. OPERATING STATUS OF NAVIGATIONAL AIDS/LIGHTS/COMMUNICATIONS Normal							
11. WEATHER DATA (USE UTC DATE/TIME)	REPORT JUST PRIOR TO ACCIDENT ROCKY MOUNT METAR - 1653 UTC: automated, wind calm, visibility eight statute miles, light rain, ceiling six thousand five hundred overcast, temperature two seven, dew point two two, altimeter two nine eight six						
	FIRST REPORT SUBSEQUENT TO ACCIDENT ROCKY MOUNT METAR - 1753 UTC: automated, wind calm, visibility nine statute miles, few clouds three thousand six hundred, ceiling nine thousand broken, temperature two seven, dew point two two, altimeter two nine eight four						
12. ATO PERSONNEL INVOLVED	NAME	FACILITY	OPERATING POSITION	CHECK IF EYEWITNESS			
	Jaelyn M Robertucci *(JP)	ZDC ARTCC	TYI R				
	Stavros Gavrielllis (GA)	ZDC ARTCC	TYI D				
*OPERATING INITIALS							
13. SIGNATURE OF FACILITY MANAGER Carl T. Adams							



**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
REPORT OF AIRCRAFT ACCIDENT**  
(Continuation Sheet)

REPORT DATE  
June 18, 2019

REPORT NO.  
19-001-ZDC

NAME OF REPORTING FACILITY  
Southwest Florida International ATCT (RSW)


14. CHRONOLOGICAL SUMMARY OF FLIGHT  
June 07, 2019

ALL TIMES BELOW ARE COORDINATED UNIVERSAL TIME  
UNLESS OTHERWISE SPECIFIED

1453 N709CH APPEARED TO DEPART APF RWY 23 AT 1453Z AND WAS ISSUED A CLIMB TO THE NORTH BY RSW DEPARTURE. N709CH INDICATED AN IMMEDIATE CLIMB IN RSW AIRSPACE TO 100. RSW TRANSFERRED CONTROL OF THE AIRCRAFT TO ZMA SECTOR 24 AND THE AIRCRAFT WAS ISSUED AN ALTITUDE OUT OF RSW AIRSPACE AT APPROXIMATELY 1500Z AT THE RSW240010 RADIAL. ALL MANUEVERS AND ACTIONS IN RSW AIRSPACE APPEARED TO BE ROUTINE.

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No More Follows

 <b>DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</b> <b>REPORT OF AIRCRAFT ACCIDENT</b> (Continuation Sheet)	REPORT DATE June 18, 2019	REPORT NO. 19-001-ZDC
	NAME OF REPORTING FACILITY Miami ARTCC (ZMA)	

14. CHRONOLOGICAL SUMMARY OF FLIGHT  
June 07, 2019

ALL TIMES BELOW ARE COORDINATED UNIVERSAL TIME  
UNLESS OTHERWISE SPECIFIED

1458 N709CH checked on frequency with the Miami ARTCC Fort Myers Low sector (R24) leaving 7700 feet for 10000 feet.

1459 R24 acknowledged N709CH and instructed the pilot to climb and maintain flight level 220. N709CH acknowledged the transmission and stated climbing to flight level 220. R24 advised they would shortly have a full route clearance for N709CH. N709CH acknowledged the transmission and advised they were standing by. N709CH called R24 and requested to deviate 10 degrees left for weather. R24 asked who wanted 10 left. N709CH requested 10 degrees left.

1500 R24 cleared N709CH to deviate left and when able proceed direct ROGAN. N709CH acknowledged the clearance. R24 advised N704CH he would have the clearance in a minute. N709CH requested to deviate right of course 30 degrees for weather.

1501 R24 approved the deviation as requested. R24 advised N709CH they were ready to read the reroute. N709CH advised they were ready for the clearance. R24 cleared N709CH to deviate right then direct ROGAN direct JINOS direct ETORE direct KESN.

1502 N709CH read back the clearance correctly. R24 advised N709CH their read back was correct.

1504 R24 read Convective SIGMET 49E and 50E on the frequency.

1507 R24 cleared N709CH to climb to flight level 230. N709CH acknowledged the clearance.

1508 R24 asked N709CH if they were proceeding direct ROGAN at this time. N709CH confirmed they were direct ROGAN. R24 acknowledged the report.

1513 R24 instructed N709CH to contact Miami Center on 125.07. N709CH acknowledged the instructions. N709CH checked in with the Miami ARTCC BOYLE sector (R65) leaving flight level 210 for flight level 230. R65 acknowledged the transmission and advised N709CH could expect higher shortly. R65 called Miami Center Fort Myers High sector (R25) for a point out on N709CH to climb higher.

1514 R25 approved the point out subject other traffic.

1523 R65 cleared N709CH direct VIYAP then direct destination. N709CH read


FAA Form 8020-6-1


19-001-ZDC

N709CH

...



 <b>DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</b> <b>REPORT OF AIRCRAFT ACCIDENT</b> (Continuation Sheet)	REPORT DATE	REPORT NO.
	June 18, 2019	19-001-ZDC
NAME OF REPORTING FACILITY		
Miami ARTCC (ZMA)		
14. CHRONOLOGICAL SUMMARY OF FLIGHT back the clearance.		
1524 R65 cleared N709CH to climb and maintain flight level 270. N709CH read back the clearance.		
1533 R65 instructed N709CH to contact Jacksonville Center on 127.47. N709CH acknowledged the clearance.		
<hr/> No More Follows		

 <b>DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</b> <b>REPORT OF AIRCRAFT ACCIDENT</b> <small>(Continuation Sheet)</small>	REPORT DATE June 18, 2019	REPORT NO. 19-001-ZDC
	NAME OF REPORTING FACILITY Jacksonville ARTCC (ZJX)	

14. CHRONOLOGICAL SUMMARY OF FLIGHT  
June 07, 2019

ALL TIMES BELOW ARE COORDINATED UNIVERSAL TIME  
UNLESS OTHERWISE SPECIFIED

1534 N709CH made initial contact with the Jacksonville ARTCC (ZJX) Green Cove sector (R75) level at flight level two seven zero and R75 acknowledged.

1556 R75 transmitted Convective Sigmets 49, 50 and 51 eastern were available until 1655 zulu and Convective Sigmets 54,55,56 and 58 eastern were available until 1755 zulu.

1604 R75 transferred communication with N709CH to ZJX frequency 126.12 mhz and N709CH acknowledged.

1605 N709CH made initial contact with the ZJX States sector (R68) level at flight level two seven zero and R68 acknowledged.

1620 R68 advised N709CH an area of moderate, heavy to extreme precipitation was at 1 o'clock, four five miles and four zero miles in diameter. N709CH acknowledged.

1631 R68 transferred communication with N709CH to ZJX frequency 124.07 mhz and N709CH acknowledged. N709CH made initial contact with the ZJX Summer sector (R47) level at flight level two seven zero and R47 acknowledged.

1659 R47 transmitted for N709CH to contact Washington ARTCC (ZDC) but the frequency was unreadable. N709CH questioned the frequency and R47 requested he stand by.

1700 R47 transferred communication with N709CH to ZDC on frequency 132.22 mhz and N709CH acknowledged.

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No More Follows



**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**  
**REPORT OF AIRCRAFT ACCIDENT**  
(Continuation Sheet)

REPORT DATE

July 22, 2019

REPORT NO.

19-001-ZDC

NAME OF REPORTING FACILITY

Washington ARTCC (ZDC)

14. CHRONOLOGICAL SUMMARY OF FLIGHT  
June 07, 2019

ALL TIMES BELOW ARE COORDINATED UNIVERSAL TIME  
UNLESS OTHERWISE SPECIFIED

- 1654 External Handoff initiated to Washington ARTCC Sector 38 (R-38).
- 1657 R-38 read Center Weather Advisory (CWA) 1630 to all aircraft on frequency.
- 1701 N709CH checked in with Washington Center at FL270. R-38 responded and advised to expect rerouting momentarily.
- 1703 R-38 asked N709CH if they were ready for rerouting. N709CH replied in the affirmative. R-38 cleared N709CH to Richmond (Romeo India Charlie), Victor 16, Patuxent (Papa Xray Tango), Victor 93 to GRACO, then direct.
- 1704 N709CH responded to R-38 with their readback. R-38 advised readback correct.
- 1717 N709CH advised R-38 of upcoming moderate weather on their radar and asked do you see that? R-38 responded that some had gotten ice, and some people have been going through it, but you could deviate right of course, and when able, proceed direct RIC. N709CH responded with deviate right of course and when able, direct RIC.
- 1720 R-38 informed N709CH that they could go back or continue right, when able, direct RIC, whatever was best for you. N709CH replied that they would prefer to continue (unintelligible), was that an okay plan? R-38 replied, "I don't know, and I don't work that sector. They will have something else for you. N709CH again requested that they would prefer to go out over towards the coast to go around all of that.
- 1721 R-38 coordinated to reroute N709CH and advised if I gave you like Franklin, HCM, TAPPA into Patuxent that way, would that work for you? N709CH advised that's okay, I guess it could. R-38 instructed N709CH to proceed to TYI, FKN to HCM for turn, ah, towards the coast and advised of the upcoming restricted area. N709CH confirmed that'll do alright.
- 1724 N709CH requested to go to FKN. R-38 cleared N709CH direct FKN, direct HCM, then direct TAPPA, and then direct PXT, then rest of route unchanged.
- 1729 N709CH asked if R-38 showed tops in the immediate area that are up to three (FL300). R-38 responded I don't have any tops reports right now,



**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**  
**REPORT OF AIRCRAFT ACCIDENT**  
(Continuation Sheet)

REPORT DATE  
July 22, 2019

REPORT NO.  
19-001-ZDC

NAME OF REPORTING FACILITY  
Washington ARTCC (ZDC)

14. CHRONOLOGICAL SUMMARY OF FLIGHT  
but I did have some weather deviations. If you need to go further right just let me know. N709CH stated "I'm gonna go about 30 degrees right." R-38 approved, and when able, direct to, ah, FKN. N709CH provided a valid readback.

1730 R-38 controller attempted to contact N709CH...

1731 R-38 controller attempted to contact N709CH multiple times...

1732 R-38 controller attempted to contact N709CH several times...

1738 R-38 attempted to contact N709CH again.

1739 R-38 controller again attempted to contact N709CH.

1747 R-38 controller attempted to contact N709CH several times...

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No More Follows

SECTION 3.  
Review of Services Memoranda



# Federal Aviation Administration

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## Memorandum

Date: June 20, 2019

To: Washington Air Route Traffic Control Center  
Aircraft Accident File 19-001-ZDC

From: Joseph E. Molsen, Manager, [REDACTED]  
Southwest Florida International Airport Traffic Control Tower, RSW ATCT

Subject: **INFORMATION**: Review Of Services Memo  
Aircraft Accident, N709CH  
Nashville, NC, June 07, 2019

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RSW ATCT conducted a review of services concerning N709CH and was determined to have routine services. As a supporting facility with routine services I certify the following data has been retained in accordance with FAA Order 8020.16. Additionally, I certify that the following originals/digital copies are on file in this office.

FAA Form 7230-10  
FAA Form 7230-4  
FAA Form 8020-6-1  
STARS Radar Data



# Federal Aviation Administration

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## Memorandum

Date: June 11, 2019

To: Washington Air Route Traffic Control Center  
Aircraft Accident File 19-001-ZDC

Clinton Weekes, Acting Manager,

CLINTON E  
WEEKES

Digitally signed by  
CLINTON E WEEKES  
Date: 2019.06.11  
09:26:20 -0400'

From: Miami Air Route Traffic Control Center, ZMA ARTCC

Subject: **INFORMATION:** Review Of Services Memo  
Aircraft Accident, N709CH  
Nashville, NC, June 07, 2019

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ZMA ARTCC conducted a review of services concerning N709CH and was determined to have routine services. As a supporting facility with routine services I certify the following data has been retained in accordance with FAA Order 8020.16. Additionally, I certify that the following originals/digital copies are on file in this office.

Certified Original Copy(ies) of Voice Recording(s)  
Certified Working Copy(ies) of Voice Recording(s)  
ERAM Local Adaptation File  
FAA Form 8020-6-1  
Flight Progress Strip(s)  
National Track Analysis Report  
Weather Data  
ERAM SAR Files  
ERAM Radar Files  
FALCON Replay




# Federal Aviation Administration

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## Memorandum

Date: June 11, 2019

To: Washington Air Route Traffic Control Center  
Aircraft Accident File 19-001-ZDC  
  
Robert A. Brown, Manager,

From: Jacksonville Air Route Traffic Control Center, ZJX ARTCC

Subject: **INFORMATION:** Review Of Services Memo  
Aircraft Accident, N709CH  
Nashville, NC, June 07, 2019

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ZJX ARTCC conducted a review of services concerning N709CH and was determined to have routine services. As a supporting facility with routine services I certify the following data has been retained in accordance with FAA Order 8020.16. Additionally, I certify that the following originals/digital copies are on file in this office.

Certified Original Copy(ies) of Voice Recording(s)  
Certified Working Copy(ies) of Voice Recording(s)  
ERAM Local Adaptation File  
FAA Form 8020-6-1  
ERAM SAR Files  
ERAM Radar Files  
Email Notification






# Federal Aviation Administration

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## Memorandum

Date: June 12, 2019

To: Washington Air Route Traffic Control Center  
Aircraft Accident File 19-001-ZDC  
  
Carl T. Adams, Manager,

From: Washington Air Route Traffic Control Center, ZDC ARTCC

Subject: **INFORMATION**: Review Of Services Memo  
Aircraft Accident, N709CH  
Nashville, NC, June 07, 2019

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ZDC ARTCC conducted a review of services concerning N709CH and was determined to have pertinent services. As the holding facility with pertinent services I certify the following data has been retained in accordance with FAA Order 8020.16. Additionally, I certify that the following originals/digital copies are on file in this office.

Certified Original Copy(ies) of Voice Recording(s)  
Certified Working Copy(ies) of Voice Recording(s)  
ERAM Local Adaptation File  
FAA Form 7230-10  
FAA Form 7230-4  
FAA Form 8020-26  
FAA Form 8020-6  
FAA Form 8020-6-1  
FAA Form 8020-9  
Facility Layout Chart(s)  
Flight Progress Strip(s)  
National Track Analysis Report  
Personnel Log(s)  
SATORI  
Weather Data  
ERAM SAR Files  
ERAM Radar Files  
ALNOT

19-001-ZDC  
N709CH

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SECTION 4.  
FAA Form(s) 7230-4, Daily Record of Facility Operation

ZDC 505



### DAILY RECORD OF FACILITY OPERATION

PAGE NO  
Page 1 of 2  
DATE  
Jun 7, 2019  
CHECKED BY

1

LOCATION	IDENTIFICATION	TYPE FACILITY	OPERATING POSITION	AIR TRAFFIC MANAGER
Leesburg, VA	ZDC	ARTCC	OMIC	Carl T. Adams

UTC TIME	REMARKS
0400	J. McCleve on duty  CFPL: Area 2 attempted to open R16. When the CS was entered R16 opened at R27 position. VSCS remained assigned to appropriate sectors. FLM had to temp mode R16 freq to R27 VSCS. SOC had to do a logical to physical back to right configuration. -- MC
0401	ILM Tower/App scheduled power outage until 1100z. 135.75 unavailable for approach control services. -- MC
0517	Certifications:  EBUS: 0351 CFAD/CRAD: 0421 ADSS: 0455 CPDLC: 0509  VSCS: Postponed until the AM shift  Traffic Count (6/06/19): 7,245 -- MC
0518	Watch Check List Complete -- MC
0842	ILM Tower/App back online. 135.75 back in service and normal. -- MC
0957	VSCS Certified: 0957 -- MC
1000	S Wolfgang on duty.  Sign In Sign Out Verified. -- WN
1000	L. Glass on duty -- LG
1000	S Surline on duty. -- VA
1030	D. Dewitt on watch desk. -- WD
1222	Sign In Sign Out Verified  Watch Check List Complete -- WN
M 1423	ZDC-M-2019/06/07-0002 -- AAL2666 -- WD
1745	1731 possible aircraft accident with N709CH. -- WD
1800	S Wolfgang off duty. -- WN
1830	J Turgeon on duty -- YU

I CERTIFY that entries above are correct, that all scheduled operations have been accomplished except as noted, and that all abnormal occurrences and conditions have been recorded.

SIGNATURE(S) OF WATCH SUPERVISOR(S)

# DAILY RECORD OF FACILITY OPERATION

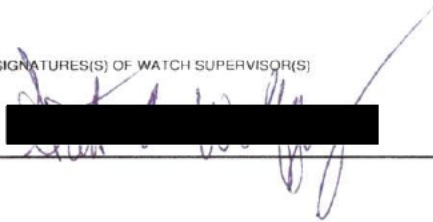
PAGE NO  
Page 2 of 2  
DATE  
Jun 7, 2019  
CHECKED BY

LOCATION	IDENTIFICATION	TYPE FACILITY	OPERATING POSITION	CHECKED BY
Leesburg, VA	ZDC	ARTCC	OMIC	AIR TRAFFIC MANAGER Carl T. Adams

UTC TIME	REMARKS
1830	M. Winter on duty -- IR
1835	S. Hurtt on duty -- SH
1920	WCLC -- IR
1947	R SPECK ON. -- RO
1957	VIP MOVEMENT: AF1 TRANSITIONED ZDC AREA 4 FROM 2015Z-2039Z WITHOUT INCIDENT. -- RO
0230	S. Hurtt off duty, combined with FLMIC -- SH
0230	S Wolfgang on duty. -- WN
0359	COB -- WN

I CERTIFY that entries above are correct, that all scheduled operations have been accomplished except as noted, and that all abnormal occurrences and conditions have been recorded.

SIGNATURE(S) OF WATCH SUPERVISOR(S)



SECTION 5.  
Personnel Log(s)

PERSONNEL LOG		REGION		FACILITY		AREA ID			DATE			
		AEA		ZDC		2 Metro South			MONTH: JUN	DAY: 07	YEAR: 2019	
NAME	CODE	TIME ON	TIME OFF	HOURS ON DUTY	HOURS ON LEAVE	LEAVE TYPE	HOURS NON POSITION DUTIES ASGNDE	HOURS POSITION DUTIES ASGNDE	REMARKS FOR: ALL ABSENCES FROM FACILITY, TRNG, TDY AND NON POSITIONAL DUTIES			
DORN, ROBERT ( NJ ) 06:00 - 13:00	R	06:00	13:00	07+00			00+46	03+26				
FAZEKAS, JAMES ( ZF ) 06:00 - 14:00	R	06:00	14:00	08+00			00+31	03+54				
PHANEUF, RAINE ( RR ) 07:00 - 15:00	9	06:00	07:00	09+00			01+05	04+55				
	R	07:00	15:00									
ROBERTUCCI, JACLYN ( JP ) 06:30 - 14:30	9	06:20	06:30	13+40			06+36	03+35				
	R	06:30	14:30									
	97	14:30	20:00									
GAVRILELLIS, STAVROS ( GA ) 06:23 - 14:23	R	06:23	14:23	13+37			06+41	05+29				
	97	14:23	20:00									
KELLER, HENRY (HANK) ( KH ) 06:30 - 15:00	R	06:30	12:30	06+00	02+30	Leave	00+00	00+00				
O'GRADY, SEAN ( SW ) 06:30 - 14:30	R	06:30	14:30	08+00			00+00	00+00				
LESTER, STEVEN ( SE ) 06:33 - 14:33	R	06:33	14:33	08+00			00+36	04+47				
LAING, WILLIAM ( WM ) 06:45 - 14:45	R	06:45	14:45	08+00			01+25	04+36				
DEL RIO, ALEX ( AD ) 06:53 - 14:53	R	06:53	14:53	08+00			01+34	04+28				
RUTKOSKE, JACOB ( RU ) 06:53 - 14:53	R	06:53	14:53	08+00			01+18	04+02				
JUSTICE, JEREMY ( XJ ) 07:00 - 15:00	R	07:00	15:00	13+00			06+11	04+01				
	97	15:00	20:00									
CABRAL, RANDY ( JR ) 07:30 - 15:30	R	07:30	15:30	08+00			01+11	03+30				
FORT, MARCEL ( MJ ) 06:00 - 14:00	R	07:30	12:00	04+30	01+30	Leave	00+27	02+10				
					02+00	Leave						
LAROSA, ANTHONY ( TL ) 07:30 - 15:30	R	07:30	15:30	08+00			07+30	00+00				
SCHMIDT, JOHN ( AN ) 07:41 - 15:41	R	07:41	15:41	09+00			00+31	05+13				
	97	15:41	16:41									
STILLWELL, RACHEL ( RC ) 07:49 - 15:49	R	07:49	15:49	08+00			00+51	03+44				
JACKSON, REXFORD ( RX ) 08:30 - 16:30	R	08:30	16:30	14+00			00+00	00+00				
	046	17:00	23:00									
SUPERVISORY CERTIFICATE	NAME	CODE	TIME ON	TIME OFF	INTLS	NAME	CODE	TIME ON	TIME OFF	INTLS		

THE SIGNATURES ABOVE CERTIFY THAT THE ABOVE ENTRIES ARE CORRECT  
(Signatures and times in charge are noted on FAA Form 7230-4, Daily Record of Facility Operation)

PERSONNEL LOG		REGION		FACILITY		AREA ID			DATE		
		AEA		ZDC		2 Metro South			MONTH: JUN	DAY: 07	YEAR: 2019
NAME	CODE	TIME ON	TIME OFF	HOURS ON DUTY	HOURS ON LEAVE	LEAVE TYPE	HOURS NON POSITION DUTIES ASGNDE	HOURS POSITION DUTIES ASGNDE	REMARKS FOR: ALL ABSENCES FROM FACILITY, TRNG, TDY AND NON POSITIONAL DUTIES		
HURLEY, PATRICK ( PH ) 12:56 - 20:56	9 R	10:56 12:56	12:56 20:56	10+00			01+10	04+58			
FAURIA, TODD ( EF ) 13:30 - 21:30	9 R	12:30 13:30	13:30 21:30	09+00			00+45	04+58			
WETHERELL, DAVID ( WL ) 12:30 - 22:30	R	12:30	22:30	10+00			00+54	04+43			
WHITE, DYANA ( ZW ) 12:30 - 20:30	R	12:30	18:30	06+00	02+00	Leave	00+27	03+20			
EWAKA, DEREK ( EW ) 13:00 - 21:00	R	13:00	21:00	08+00			00+51	03+19			
FOLLMER, SANDRA ( SA ) 13:00 - 21:00	R	13:00	19:00	06+00	02+00	Leave	00+31	03+33			
MILLER, MICHAEL ( AO ) 13:30 - 21:30	R	13:30	21:30	08+00			00+36	04+39			
SCHARPF, GARY ( GP ) 13:58 - 21:58	R	13:58	21:58	08+00			00+18	04+27			
PULLEY, CALEB ( FL ) 14:30 - 22:30	R	14:30	22:30	08+00			00+06	04+05			
GROVES, CHRISTOPHER ( BK ) 14:36 - 23:36	R	14:36	23:36	09+00			00+49	03+54			
CURTIS, JOSHUA ( HP ) 14:49 - 22:49	R	14:49	22:49	08+00			00+38	04+43			
HEATH, JAMES ( EH ) 14:52 - 23:52	R	14:52	23:52	09+00			00+47	03+21			
ORTA, NATHAN ( NE ) 14:55 - 22:55	R	14:55	22:55	08+00			00+36	04+15			
RITTER, KATELYN ( KT ) 16:00 - 00:00	9 R	15:30 16:00	16:00 00:00	08+30			00+45	04+01			
DORN, ROBERT ( NJ ) 22:15 - 06:15	R	22:15	06:15	08+00			00+15	03+55			
LAING, WILLIAM ( WM ) 22:45 - 06:45	R	22:45	06:45	08+00			00+12	02+55			
SMITH, ANDREW ( ZH ) 07:00 - 15:00					08+00	Leave	00+00	00+00			
RUCKER, CLARENCE ( UB ) 07:00 - 17:00					10+00	Leave	00+00	00+00			
SUPERVISORY CERTIFICATE	NAME	CODE	TIME ON	TIME OFF	INTLS	NAME	CODE	TIME ON	TIME OFF	INTLS	

THE SIGNATURES ABOVE CERTIFY THAT THE ABOVE ENTRIES ARE CORRECT  
(Signatures and times in charge are noted on FAA Form 7230-4, Daily Record of Facility Operation)

PERSONNEL LOG		REGION		FACILITY		AREA ID			DATE		
		AEA		ZDC		2 Metro South			MONTH: JUN	DAY: 07	YEAR: 2019
NAME	CODE	TIME ON	TIME OFF	HOURS ON DUTY	HOURS ON LEAVE	LEAVE TYPE	HOURS NON POSITION DUTIES ASGNDE	HOURS POSITION DUTIES ASGNDE	REMARKS FOR: ALL ABSENCES FROM FACILITY, TRNG, TDY AND NON POSITIONAL DUTIES		
HUNG, ALLAN ( HH ) 14:00 - 22:00					08+00	Leave	00+00	00+00			
BISHOP, SPENCER ( SB ) 15:00 - 23:00					08+00	Leave	00+00	00+00			
BERRY, PETER ( BY ) RDO	51	06:00	14:00	10+00			00+46	05+09			
VALVERI, JOHN ( VP ) RDO		07:30	15:30	08+00			00+35	04+15			
BRADY, JOSHUA ( NG ) RDO		14:50	22:50	08+00			01+12	03+53			
CRAVEN, GREGORY ( TQ ) RDO		15:30	23:30	08+00			00+49	03+01			
BEAUDWAY, AARON ( HD ) NAS											
BEETON, CORI ( QT ) NAS											
BAE, JAE ( YK ) RDO											
BRADBURY, RONALD ( ZA ) RDO											
CORNELIUSSEN, DONNA ( NF ) RDO											
CURRAN, RACHEL ( RM ) RDO											
DAVIS, SCOTT ( RD ) RDO											
GUIN, JUAN ( DG ) RDO											
GUNN, SETH ( SR ) RDO											
KORBINI, ASHELL ( ZT ) RDO											
LINDWARM, JEFFREY ( LF ) RDO											
LUCIANO, RAMON ( DN ) RDO											
SUPERVISORY CERTIFICATE	NAME	CODE	TIME ON	TIME OFF	INTLS	NAME	CODE	TIME ON	TIME OFF	INTLS	

THE SIGNATURES ABOVE CERTIFY THAT THE ABOVE ENTRIES ARE CORRECT  
(Signatures and times in charge are noted on FAA Form 7230-4, Daily Record of Facility Operation)



PERSONNEL LOG		REGION		FACILITY		AREA ID			DATE			
		AEA		ZDC		2 Metro South			MONTH: JUN	DAY: 07	YEAR: 2019	
NAME	CODE	TIME ON	TIME OFF	HOURS ON DUTY	HOURS ON LEAVE	LEAVE TYPE	HOURS NON POSITION DUTIES ASGNDE	HOURS POSITION DUTIES ASGNDE	REMARKS FOR: ALL ABSENCES FROM FACILITY, TRNG, TDY AND NON POSITIONAL DUTIES			
PINNERI, DANIELLE ( PU ) RDO												
QUINONES, ANTHONY ( AQ ) RDO												
ZIRKIND, MALKITZEDEK ( ZD ) RDO												
SUPERVISORY CERTIFICATE	NAME	CODE	TIME ON	TIME OFF	INTLS	NAME	CODE	TIME ON	TIME OFF	INTLS		
THE SIGNATURES ABOVE CERTIFY THAT THE ABOVE ENTRIES ARE CORRECT (Signatures and times in charge are noted on FAA Form 7230-4, Daily Record of Facility Operation)												

Form 7230-4 (Dec 08)

Official Version

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SECTION 6.

FAA Form(s) 7230-10, Position Log, or automated equivalent

POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	TYI	R	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		0402		RDU	R
0400		0402		RDU	R
0400		0402		RDU	R
0403		1007		BKT	R
0403		1007		BKT	R
1008		1145		RDU	R
1008		1145		RDU	R
1008		1145		RDU	R
1146	XJ	1234	C		
1235	JP	1333	C		
1334	XJ	1455	C		
1456	VP	1602	C		
1603	PH	1621	C		
1622	JP	1734	C		
<b>CODE:</b> <b>C</b> - ATCS/ATA <b>S</b> - Supervisor/Staff Spec <b>T</b> - Trainee/Developmental <b>M</b> - Trainee/Developmental Monitoring <b>R</b> - Trainee/Developmental Certification/ Evaluation					

FAA Form 7230-10 (6-94) NSN: 0052-00-024-6102 Electronic Version (OmniForm)

FOR OFFICIAL USE ONLY Public Availability to be determined under 5 U.S.C. 552

POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	TYI	R	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
1735	PH	1757	C		
1758	BY	1904	C		
1905	EH	1941	C		
1942	KT	1959	C		
2000	KT	2028	C		
2029	EF	2121	C		
2122	KT	2217	C		
2218	EH	2316	C		
2317	HP	0005	C		
0006	EH	0058	C		
0059	HP	0150	C		
0151		0332		RDU	R
0151		0332		RDU	R
0151		0332		RDU	R

**CODE:**  
**C** - ATCS/ATA  
**S** - Supervisor/Staff Spec  
**T** - Trainee/Developmental  
**M** - Trainee/Developmental Monitoring  
**R** - Trainee/Developmental Certification/  
 Evaluation

FAA Form 7230-10 (6-94) NSN 0052-00-024-6102 Electronic Version (OmniForm)  
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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	TYI	R	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0333		0354		BKT	R
0333		0354		BKT	R
0355		0359		LIB	R
0355		0359		LIB	R
0355		0359		LIB	R
<b>CODE:</b>					
C - ATCS/ATA		M - Trainee/Developmental Monitoring			
S - Supervisor/Staff Spec		R - Trainee/Developmental Certification/ Evaluation			
T - Trainee/Developmental					

FAA Form 7230-10 (6-94) NSN: 0052-00-024-6102 Electronic Version (OmniForm)  
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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	TYI-D	RA	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		1040		TYI	R
0400		1040		TYI	R
1041		1146		RDU-D	RA
1147		1700		TYI	R
1147		1700		TYI	R
1701	GA	1734	C		
1735		2124		TYI	R
1735		2124		TYI	R
2125	AO	2219	C		
2220		2350		TYI	R
2220		2350		TYI	R
2351	AO	0047	C		
0048		0359		TYI	R
0048		0359		TYI	R
<b>CODE:</b> <b>C</b> - ATCS/ATA <b>M</b> - Trainee/Developmental Monitoring <b>S</b> - Supervisor/Staff Spec <b>R</b> - Trainee/Developmental Certification/ <b>T</b> - Trainee/Developmental   Evaluation					

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19-001-ZDC  
 N709CH

<b>POSITION LOG</b>					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	TYI-L	H	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		0359		TYI	R
0400		0359		TYI	R
<b>CODE:</b>					
<b>C - ATCS/ATA</b>		<b>M - Trainee/Developmental Monitoring</b>			
<b>S - Supervisor/Staff Spec</b>		<b>R - Trainee/Developmental Certification/ Evaluation</b>			
<b>T - Trainee/Developmental</b>					

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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	A2	A	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		0359		CLOSED	
0400		0359		BKT	R
0400		0359		FM-2	O
0400		0359		BKT	R
0400		0359		FM-2	O
0400		0359		FM-2	O
<b>CODE:</b> <b>C</b> - ATCS/ATA <b>S</b> - Supervisor/Staff Spec <b>T</b> - Trainee/Developmental <b>M</b> - Trainee/Developmental Monitoring <b>R</b> - Trainee/Developmental Certification/ Evaluation					

FAA Form 7230-10 (6-94) NSN 0052-00-024-6102 Electronic Version (OmniForm)  
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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	BKT	R	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400	HD	0408	C		
0409	QT	0424	C		
0425	HD	0728	C		
0729	QT	1000	C		
1001	ZF	1055	C		
1056	WM	1103	C		
1104	AD	1130	T		
1104	WM	1130	C		
1131	JR	1134	C		
1135	VP	1221	C		
1222	AD	1330	T		
1222	WM	1330	C		
1331	AN	1422	C		
1423	AD	1557	T		
<b>CODE:</b> C - ATCS/ATA S - Supervisor/Staff Spec T - Trainee/Developmental M - Trainee/Developmental Monitoring R - Trainee/Developmental Certification/ Evaluation					

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### POSITION LOG

(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE	WHERE COMBINED	
ZDC	BKT	R	06/07/2019	(9) POSITION IDENTIFIER	(10) POSITION TYPE
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE		
1423	WM	1557	C		
1558	NJ	1635	C		
1636	WL	1647	C		
1648	AD	1804	T		
1648	WM	1804	C		
1805	GP	1917	C		
1918	NE	2034	C		
2035	EH	2126	C		
2127	ZW	2226	C		
2227	BK	2323	C		
2324	WL	0031	C		
0032	NG	0107	C		
0108	NE	0208	C		
0209	BK	0225	C		

**CODE:**  
C - ATCS/ATA  
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FAA Form 7230-10 (6-94) NSN 0052-00-024-6102 Electronic Version (OmniForm)  
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### POSITION LOG

POSITION LOG											
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE								
ZDC	BKT	R	06/07/2019								
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED							
				(9) POSITION IDENTIFIER	(10) POSITION TYPE						
0226	KT	0251	C								
0252	WM	0354	C								
0355		0359		LIB	R						
0355		0359		LIB	R						
0355		0359		LIB	R						
<b>CODE:</b> <table style="width: 100%;"> <tr> <td style="width: 50%;">C - ATCS/ATA</td> <td style="width: 50%;">M - Trainee/Developmental Monitoring</td> </tr> <tr> <td>S - Supervisor/Staff Spec</td> <td>R - Trainee/Developmental Certification/ Evaluation</td> </tr> <tr> <td>T - Trainee/Developmental</td> <td></td> </tr> </table>						C - ATCS/ATA	M - Trainee/Developmental Monitoring	S - Supervisor/Staff Spec	R - Trainee/Developmental Certification/ Evaluation	T - Trainee/Developmental	
C - ATCS/ATA	M - Trainee/Developmental Monitoring										
S - Supervisor/Staff Spec	R - Trainee/Developmental Certification/ Evaluation										
T - Trainee/Developmental											

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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	BKT-D	RA	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
1345	RC	1521	T		
1345	RR	1521	C		
1522		1625		BKT	R
1522		1625		BKT	R
1626	RC	1805	T		
1626	RR	1805	C		
1806		1944		BKT	R
1806		1944		BKT	R
1945	AO	2034	C		
2035		0240		BKT	R
2035		0240		BKT	R
0241		0359		BKT	R
0241		0359		BKT	R
<b>CODE:</b>					
C - ATCS/ATA			M - Trainee/Developmental Monitoring		
S - Supervisor/Staff Spec			R - Trainee/Developmental Certification/ Evaluation		
T - Trainee/Developmental					

FAA Form 7230-10 (6-94) NSN 0052-00-024-6102 Electronic Version (OmniForm)

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**POSITION LOG**

<b>POSITION LOG</b>					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	BKT-L	H	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		0359		BKT	R
0400		0359		BKT	R
<b>CODE:</b> C - ATCS/ATA S - Supervisor/Staff Spec T - Trainee/Developmental M - Trainee/Developmental Monitoring R - Trainee/Developmental Certification/ Evaluation					

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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	DOM	R	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		1208		BKT	R
0400		1208		BKT	R
1209	SE	1310	C		
1311	VP	1356	C		
1357	SE	1504	C		
1505	PH	1601	C		
1602	SE	1726	C		
1727	ZW	1838	C		
1839	JR	1854	C		
1855	HP	2006	C		
2007	GP	2038	C		
2039	TQ	2127	C		
2128	NE	2228	C		
2229	TQ	2320	C		
<b>CODE:</b> C - ATCS/ATA S - Supervisor/Staff Spec T - Trainee/Developmental M - Trainee/Developmental Monitoring R - Trainee/Developmental Certification/ Evaluation					

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<b>POSITION LOG</b>					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	DOM	R	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
2321	NE	0016	C		
0017	TQ	0045	C		
0046		0354		BKT	R
0046		0354		BKT	R
0355		0359		LIB	R
0355		0359		LIB	R
0355		0359		LIB	R

**CODE:**  
**C** - ATCS/ATA **M** - Trainee/Developmental Monitoring  
**S** - Supervisor/Staff Spec **R** - Trainee/Developmental Certification/Evaluation  
**T** - Trainee/Developmental

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**POSITION LOG**

<b>POSITION LOG</b>					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	DOM-D	RA	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		1028		DOM	R
0400		1028		DOM	R
1029		1129		BKT-D	RA
1130		1146		DOM	R
1130		1146		DOM	R
1147		1208		BKT-D	RA
1209	RR	1238	C		
1209	RU	1238	T		
1239	JR	1307	C		
1239	RU	1307	T		
1308		1358		DOM	R
1308		1358		DOM	R
1359	JR	1513	C		
1359	RU	1513	T		

**CODE:****C** - ATCS/ATA**M** - Trainee/Developmental Monitoring**S** - Supervisor/Staff Spec**R** - Trainee/Developmental Certification/**T** - Trainee/Developmental

Evaluation

FAA Form 7230-10 (6-94)

NSN 0052-00-024-6102

Electronic Version (OmniForm)

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<b>POSITION LOG</b>					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	DOM-D	RA	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
1514		1558		DOM	R
1514		1558		DOM	R
1559	JR	1724	C		
1559	RU	1724	T		
1725		1736		DOM	R
1725		1736		DOM	R
1737	AO	1855	C		
1856		1914		DOM	R
1856		1914		DOM	R
1915	RC	1941	C		
1942		0359		DOM	R
1942		0359		DOM	R
<b>CODE:</b>					
<b>C</b> - ATCS/ATA		<b>M</b> - Trainee/Developmental Monitoring			
<b>S</b> - Supervisor/Staff Spec		<b>R</b> - Trainee/Developmental Certification/ Evaluation			
<b>T</b> - Trainee/Developmental					

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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	FKN-D	RA	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		0359		FKN	R
0400		1028		FKN	R
0400		0359		FKN	R
0400		1028		FKN	R
1029		1129		BKT-D	RA
1130		1146		FKN	R
1130		1146		FKN	R
1147		1208		BKT-D	RA
1209		1307		DOM-D	RA
1308		1358		FKN	R
1308		1358		FKN	R
1359		1513		DOM-D	RA
1514		1558		FKN	R
1514		1558		FKN	R

**CODE:**

<b>C</b> - ATCS/ATA	<b>M</b> - Trainee/Developmental Monitoring
<b>S</b> - Supervisor/Staff Spec	<b>R</b> - Trainee/Developmental Certification/Evaluation
<b>T</b> - Trainee/Developmental	

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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	HPW	R	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		1030		BKT	R
0400		1030		BKT	R
1031	JP	1058	C		
1059	BY	1149	C		
1150	MJ	1233	C		
1234	NJ	1332	C		
1333	MJ	1430	C		
1431	JP	1525	C		
1526	MJ	1553	C		
1554	ZF	1705	C		
1706	SA	1832	C		
1833	FL	1938	C		
1939	TQ	1948	C		
1949	SA	2054	C		
<b>CODE:</b> C - ATCS/ATA S - Supervisor/Staff Spec T - Trainee/Developmental M - Trainee/Developmental Monitoring R - Trainee/Developmental Certification/ Evaluation					

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<b>POSITION LOG</b>					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	HPW	R	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
2055	HP	2209	C		
2210	EF	2308	C		
2309	KT	0013	C		
0014	BK	0119	C		
0120	WL	0152	C		
0153	HP	0208	C		
0209		0354		BKT	R
0209		0354		BKT	R
0355		0359		LIB	R
0355		0359		LIB	R
0355		0359		LIB	R
<b>CODE:</b>					
C - ATCS/ATA		M - Trainee/Developmental Monitoring			
S - Supervisor/Staff Spec		R - Trainee/Developmental Certification/ Evaluation			
T - Trainee/Developmental					

FAA Form 7230-10 (6-94)    NSN: 0052-00-024-6102    Electronic Version (OmniForm)  
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<b>POSITION LOG</b>					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	HPW-D	RA	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
1939		2033		HPW	R
1939		2033		HPW	R
1939		2033		HPW	R
2034	EW	2133	T		
2034	PH	2133	C		
2134		2224		HPW	R
2134		2224		HPW	R
2134		2224		HPW	R
2225	EW	2346	T		
2225	PH	2346	C		
2347		0359		HPW	R
2347		0359		HPW	R
2347		0359		HPW	R
<b>CODE:</b> <b>C</b> - ATCS/ATA <b>M</b> - Trainee/Developmental Monitoring <b>S</b> - Supervisor/Staff Spec <b>R</b> - Trainee/Developmental Certification/ <b>T</b> - Trainee/Developmental                         Evaluation					

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### POSITION LOG

(1) FACILITY ID					
(2) POSITION IDENTIFIER		(3) POS		(4) DATE	
ZDC		HPW - L		H	
06/07/2019					
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		0359		HPW	R
0400		0359		HPW	R
0400		0359		HPW	R

**CODE:**

<p><b>C</b> - ATCS/ATA</p> <p><b>S</b> - Supervisor/Staff Spec</p> <p><b>T</b> - Trainee/Developmental</p>	<p><b>M</b> - Trainee/Developmental Monitoring</p> <p><b>R</b> - Trainee/Developmental Certification/ Evaluation</p>
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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	IRS-D	RA	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		1028		IRS	R
0400		1028		IRS	R
1029		1129		BKT-D	RA
1130		1146		IRS	R
1130		1146		IRS	R
1147		1208		BKT-D	RA
1209		1225		IRS	R
1209		1225		IRS	R
1226		1255		BKT-D	RA
1256		1344		IRS	R
1256		1344		IRS	R
1345		1521		BKT-D	RA
1522		1625		IRS	R
1522		1625		IRS	R

**CODE:**  
**C** - ATCS/ATA                                      **M** - Trainee/Developmental Monitoring  
**S** - Supervisor/Staff Spec                      **R** - Trainee/Developmental Certification/  
**T** - Trainee/Developmental                      Evaluation

FAA Form 7230-10 (6-94)      NSN: 0052-00-024-6102      Electronic Version (OmniForm)  
FOR OFFICIAL USE ONLY Public Availability to be determined under 5 U.S.C. 552

POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	IRS-D	RA	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
1626		1805		BKT-D	RA
1806		1944		IRS	R
1806		1944		IRS	R
1945		2034		BKT-D	RA
2035		0359		IRS	R
2035		0359		IRS	R
<b>CODE:</b> C - ATCS/ATA <b>M</b> - Trainee/Developmental Monitoring <b>S</b> - Supervisor/Staff Spec <b>R</b> - Trainee/Developmental Certification/ T - Trainee/Developmental    Evaluation					

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**FOR OFFICIAL USE ONLY** Public Availability to be determined under 5 U.S.C. 552

19-001-ZDC  
N709CH

### POSITION LOG

(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	LIB	R	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		0402		RDU	R
0400		0402		RDU	R
0400		0402		RDU	R
0403		1007		BKT	R
0403		1007		BKT	R
1008		1255		RDU	R
1008		1255		RDU	R
1008		1255		RDU	R
1256	ZF	1311	C		
1312		1425		RDU	R
1312		1425		RDU	R
1312		1425		RDU	R
1426	AN	1428	C		
1429	NJ	1524	C		
<b>CODE:</b> <b>C</b> - ATCS/ATA <b>S</b> - Supervisor/Staff Spec <b>T</b> - Trainee/Developmental <b>M</b> - Trainee/Developmental Monitoring <b>R</b> - Trainee/Developmental Certification/ Evaluation					

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19-001-ZDC  
 N709CH



POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	LIB	R	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
1525	AN	1636	C		
1637	EF	1729	C		
1730	EF	1739	C		
1740	WL	1846	C		
1847	BK	1931	C		
1932	ZW	2039	C		
2040	NG	2152	C		
2153	SA	2209	C		
2210		0332		RDU	R
2210		0332		RDU	R
2210		0332		RDU	R
0333		0357		BKT	R
0333		0357		BKT	R
0358	WM	0359	C		
<b>CODE:</b>					
C - ATCS/ATA			M - Trainee/Developmental Monitoring		
S - Supervisor/Staff Spec			R - Trainee/Developmental Certification/Evaluation		
T - Trainee/Developmental					

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19-001-ZDC  
N709CH

POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	LIB-D	RA	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		1040		LIB	R
0400		1040		LIB	R
0400		1040		LIB	R
1041		1152		RDU-D	RA
1153		1156		LIB	R
1153		1156		LIB	R
1153		1156		LIB	R
1157		1239		RDU-D	RA
1240		2219		LIB	R
1240		2219		LIB	R
1240		2219		LIB	R
2220		2316		RDU-D	RA
2317		0359		LIB	R
2317		0359		LIB	R
<b>CODE:</b> C - ATCS/ATA    M - Trainee/Developmental Monitoring S - Supervisor/Staff Spec    R - Trainee/Developmental Certification/ T - Trainee/Developmental    Evaluation					

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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	LIB-D	RA	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
2317		0359		LIB	R
<b>CODE:</b>					
C - ATCS/ATA			M - Trainee/Developmental Monitoring		
S - Supervisor/Staff Spec			R - Trainee/Developmental Certification/ Evaluation		
T - Trainee/Developmental					

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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	LIB-L	H	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		0359		LIB	R
0400		0359		LIB	R
0400		0359		LIB	R
<b>CODE:</b>					
C - ATCS/ATA			M - Trainee/Developmental Monitoring		
S - Supervisor/Staff Spec			R - Trainee/Developmental Certification/ Evaluation		
T - Trainee/Developmental					

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19-001-ZDC  
 N709CH

### POSITION LOG

(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	QM-2	O	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		1733		A2	A
0400		1733		A2	A
0400		1733		A2	A
1734	AN	1906	C		
1907	NG	1948	C		
1949	AN	2031	C		
2032	FL	2134	C		
2222	FL	2316	C		
2317	GP	0014	C		
0015		0142		Closed	
0143	FL	0153	C		
0154	NG	0211	C		
0212		0359		A2	A
0212		0359		A2	A
<b>CODE:</b>					
C - ATCS/ATA		M - Trainee/Developmental Monitoring			
S - Supervisor/Staff Spec		R - Trainee/Developmental Certification/			
T - Trainee/Developmental		Evaluation			

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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	QM-2	O	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0212		0359		A2	A
<b>CODE:</b>					
C - ATCS/ATA		M - Trainee/Developmental Monitoring			
S - Supervisor/Staff Spec		R - Trainee/Developmental Certification/ Evaluation			
T - Trainee/Developmental					

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### POSITION LOG

POSITION LOG											
(1) FACILITY ID	(2) POSITION IDENTIFIER		(3) POS	(4) DATE							
ZDC	RDU		R	06/07/2019							
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED							
				(9) POSITION IDENTIFIER	(10) POSITION TYPE						
0400	QT	0402	C								
0403		1010		BKT	R						
0403		1010		BKT	R						
1011	RR	1056	C								
1057	NJ	1149	C								
1150	AN	1239	C								
1240	BY	1403	C								
1240	GA	1403	T								
1404	ZF	1504	C								
1505	BY	1651	C								
1505	GA	1651	T								
1652	VP	1826	C								
1827	EF	1939	C								
1940	WL	2029	C								
<b>CODE:</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">C - ATCS/ATA</td> <td style="width: 50%;">M - Trainee/Developmental Monitoring</td> </tr> <tr> <td>S - Supervisor/Staff Spec</td> <td>R - Trainee/Developmental Certification/ Evaluation</td> </tr> <tr> <td>T - Trainee/Developmental</td> <td></td> </tr> </table>						C - ATCS/ATA	M - Trainee/Developmental Monitoring	S - Supervisor/Staff Spec	R - Trainee/Developmental Certification/ Evaluation	T - Trainee/Developmental	
C - ATCS/ATA	M - Trainee/Developmental Monitoring										
S - Supervisor/Staff Spec	R - Trainee/Developmental Certification/ Evaluation										
T - Trainee/Developmental											

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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	RDU	R	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
2030	BK	2118	C		
2119	WL	2211	C		
2212	SA	2254	C		
2255	NG	2358	C		
2359	EF	0049	C		
0050	TQ	0103	C		
0104	KT	0150	C		
0151	TQ	0217	C		
0218	NJ	0332	C		
0333		0354		BKT	R
0333		0354		BKT	R
0355		0359		LIB	R
0355		0359		LIB	R
0355		0359		LIB	R
<b>CODE:</b>					
C - ATCS/ATA			M - Trainee/Developmental Monitoring		
S - Supervisor/Staff Spec			R - Trainee/Developmental Certification/ Evaluation		
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### POSITION LOG

(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	RDU-D	RA	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
2317		0359		RDU	R
2317		0359		RDU	R

**CODE:**

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S - Supervisor/Staff Spec	R - Trainee/Developmental Certification/ Evaluation
T - Trainee/Developmental	

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POSITION LOG					
(1) FACILITY ID	(2) POSITION IDENTIFIER	(3) POS	(4) DATE		
ZDC	RDU-L	H	06/07/2019		
(5) TIME ON	(6) INITIALS	(7) TIME OFF	(8) CODE	WHERE COMBINED	
				(9) POSITION IDENTIFIER	(10) POSITION TYPE
0400		0359		RDU	R
0400		0359		RDU	R
0400		0359		RDU	R
<b>CODE:</b>					
C - ATCS/ATA			M - Trainee/Developmental Monitoring		
S - Supervisor/Staff Spec			R - Trainee/Developmental Certification/ Evaluation		
T - Trainee/Developmental					

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SECTION 7.  
Facility Layout Chart(s)



SECTION 8.

Flight Progress Strip(s) and/or In-Flight Contact Record(s)

Flight Progress Strip(s)

FPS Washington ARTCC June 07, 2019 UTC

<b>N709CH</b> P46T/G T260 G276 20 14 <b>227</b> 10/3	TYI 274 030 1726	270	FKN 027 021	KAPF./TYI274030 FKN HCM TAPPA V16 PXT V93 GRACO KESN	<b>1436</b>
	FKN				
	FKN				

SECTION 9.  
Transcription of Voice Recording(s)





# Federal Aviation Administration

...

## Memorandum

Date: June 19, 2019

To: Aircraft Accident File 19-001-ZDC

From: Washington Air Route Traffic Control Center

Subject: **INFORMATION:** Partial Transcript  
 Aircraft Accident, N709CH  
 Nashville, NC, June 07, 2019

This transcription covers the Washington Air Route Traffic Control Center (ARTCC) TYI R position for the time period from June 07, 2019, 1631 UTC, to June 07, 2019, 1818 UTC.

I certify that the following is a true transcription of the recorded conversations pertaining to the subject Accident involving N709CH.

MICHAEL A DIMATTEO  
 Digitally signed by MICHAEL A DIMATTEO  
 Date: 2019.06.19 14:39:07 -04'00'

Michael A Dimatteo  
 Support Specialist  
 Washington ARTCC

Agencies Making Transmissions	Abbreviations
N709CH	N709CH
Washington ARTCC, TYI R	TYI R

1631  
 (1632-1700)  
 1701  
 1701:18 N709CH washington center (unintelligible) seven zero nine charlie hotel with you at flight level two seven zero

1701:25 TYI R november seven zero nine charlie hotel washington center i'll have routing for you here in a moment

1702  
 1703  
 1703:27 TYI R november seven zero nine charlie hotel you ready for your routing

1703:31 N709CH ready for routing seven o nine charlie hotel

19-001-ZDC  
 N709CH

1703:33 TYI R november seven zero nine charlie hotel you're cleared direct richmond romeo india charlie victor sixteen to patuxent papa xray tango victor ninety three to graco golf romeo alpha charlie oscar direct

1703:34 N709CH seven zero nine charlie hotel ah direct r i c then victor six one six then ah papa xray tango then victor niner three then graco

1704

1704:34 TYI R read back correct thank you

1705  
(1706-1716)  
1717

1717:10 N709CH washington seven zero nine charlie hotel our radar shows us coming into ah some weather ahead ah do you see that

1717:17 TYI R ah some people been going around it some people been going through it but you can deviate ah right of course when able direct richmond

1717:18 N709CH roger we can deviate right of course and then when able direct to richmond seven zero nine charlie hotel

1718  
1719  
1720

1720:25 TYI R november seven zero nine charlie hotel you can go left or right when able direct richmond whatever's best for you

1720:34 N709CH richmond looks dicey weather too is that okay for us

1720:37 TYI R i don't know i don't work that though next sector will ah have something for you with that yeah it does look a little a little rough around there but they'll have something for ya

1721

1721:01 N709CH we're thinking it might be better for us to go out over towards the coast to go around all of that seven o nine charlie hotel

1721:06 TYI R alright well we got the restricted area active so ah we gotta we gotta work within the confines of that if i gave you like franklin harcum which hotel charlie mike and then um tappa tango alpha papa papa alpha into patuent that way would that work for you does that sound like

something that would work

1721:29 N709CH you have to say it again we didn't catch it

1721:30 TYI R that's okay ah like tar river er i'm sorry franklin  
foxtrot kilo november to harcum hotel charlie mike and  
then ah towards patuxent they'll be another fix in  
between there just to keep you out of the restricted area  
but we could do something like that

1721:53 N709CH we'll we'll check seven zero nine charlie hotel  
1722  
1723  
1724

1724:12 N709CH seven zero nine charlie hotel like to start heading  
towards flan franklin

1724:21 TYI R and ah seven zero nine charlie hotel cleared direct  
franklin foxtrot kilo november direct harcum hotel  
charlie mike and direct tappa tango alpha papa papa alpha  
and then direct to patuxent the rest of route unchanged

1725  
(1726-1728)  
1729

1729:15 N709CH washington seven o nine charlie hotel you showing tops  
over here looks like we're about to go into some rain

1729:20 TYI R ah i don't have any tops reports right now but i do have  
some weather deviations if you need to go further right  
just let me know

1729:27 N709CH yeah seven o nine charlie ho hotel about thirty degrees  
right

1729:31 TYI R november seven zero nine charlie hotel approved when able  
direct to ah franklin

1729:36 N709CH when able direct franklin seven o nine charlie hotel  
1730

1730:46 TYI R november seven zero nine charlie hotel

1730:51 TYI R november seven zero nine charlie hotel

1730:58 TYI R november seven zero nine charlie hotel  
1731

1731:13 TYI R november seven zero nine charlie hotel

1731:42 TYI R november seven zero nine charlie hotel

1731:50 TYI R november seven zero nine charlie hotel  
1732

1732:22 TYI R november seven zero nine charlie hotel

1732:57 TYI R november seven zero nine charlie hotel  
1733  
(1734-1737)  
1738

1738:35 TYI R november seven zero nine charlie hotel washington  
1739

1739:41 TYI R november seven zero nine charlie hotel washington  
1740  
(1741-1745)  
1746

1746:57 TYI R seven zero nine charlie hotel washington  
1747

1747:03 TYI R november seven zero nine charlie hotel

1747:12 TYI R meridian seven zero nine charlie hotel washington  
1748  
(1749-1817)  
1818

End of Transcript

SECTION 10.  
Weather Products


Washington ARTCC

Weather Products 6/7/2019 UTC

METAR KRWI 071653Z AUTO 00000KT 8SM -RA OVC065 27/22 A2986 RMK AO2 LTG DSNT NW  
RAB49 SLP109 P0000 T02670222

METAR KRWI 071753Z AUTO 00000KT 9SM FEW036 BKN090 27/22 A2984 RMK AO2 LTG DSNT N  
RAE11 SLP102 P0000 60000 T02720217 10278 20233 58011

I certify the attached copy of the METARs originated from the APG-link to  
archived weather is an accurate copy of the original.



Robert Law  
Quality Control Specialist  
Washington ARTCC

19-001-ZDC  
N709CH



# ZDC CWSU WEATHER BRIEFING SHEET

VALID: 6/19Z - 7/04Z ISSUED: 19Z - 6/5/19 FORECASTER: MICHAEL

Link to BRIEFING PDF: [weather.gov/media/zdc/brief/BRIEF.PDF](http://weather.gov/media/zdc/brief/BRIEF.PDF)

**DURING NON-CWSU OPS HRS, CONTACT THE STERLING NWS OFFICE FOR UPDATES: 703-996-2202**

**WEATHER SYNOPSIS:** SCT-ISOLD THUNDERSTORMS POSSIBLE ACROSS ZDC WITH THE HIGHEST COVERAGE SPREAD W-E ALONG THE NC/VA BORDER LATE AFTERNOON INTO TONIGHT. A FEW MERGING CELLS MAY ALSO IMPACT NJ/DELMARVA.

**ZDC ENROUTE WX HAZARDS BY AREA (PIREPS REQUESTED IF AREA HAS A "X")**  
[X = HAZARD IS OCCURRING OR FORECAST TO OCCUR FOR THAT AREA IN NEXT 8 HOURS]

HAZARD	AREAS (click to view map)						SUMMARY OF HAZARD
	1	2	3	4	5	6	
ICING							NO SIG ICE OUTSD SHRA/TS: FRZ LEVEL 130 N - 150 S ZDC
TURBULENCE	X	X	X	X	X	X	OUTSD SHRA/TS: OCNL MOD ABV FL260
COMPRESSION/ LLWS							
CIG BLW 050/ VIS BLW 3SM							
TSRA	X	X	X	X	X	X	ISOLD-SCT TS S NJ TO NC...TOPS FL400 AND MOVE E 10 KT

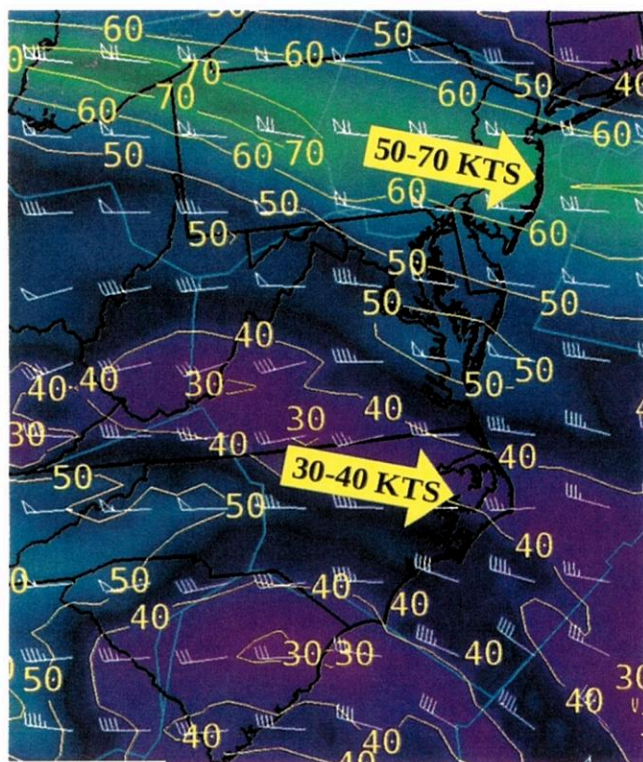
**TERMINAL WX HAZARDS/IMPACTS - FOR THE LATEST TAFS, PLEASE VISIT:**

<https://www.aviationweather.gov/taf>

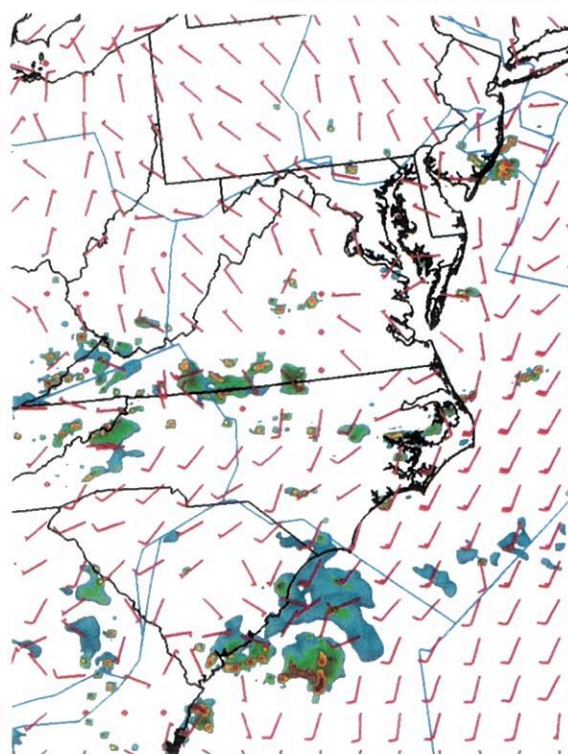
[X = HAZARD/IMPACT IS FORECAST AT ONE OR MORE TERMINAL(S) IN NEXT 8 HRS]

TERMINALS	SFC WIND/WX HAZARDS			
	SFC WINDS	PRECIP	MVFR-LIFR	LLWS/COMPRSN
IAD/DCA/BWI	NW 8G16 KT...NNW 6 KT AFT 23Z			
RIC/ORF/PHF	W 10 KT...SW 5 KT AFT 23Z	VCTS AFT 23Z		
ROA/CHO/LYH	VRB 5 KT	VCTS		
RDU/CLT/GSO	SW 8G16 KT	VCTS		
EWR/JFK/LGA	NW 7 KT...FEW GUST 18 KT			
PHL	NW 8 KT	VCTS TIL 21Z		
BOS	E 6 KT...SE 5 KT AFT 23Z			
ATL	SW 6 KT...S 6 KT AFT 00Z	SHRA...EMBD ISOLD TS	SCT MVFR	

**21Z FCST FL350 WIND (KT)**



**22Z FCST RADAR / SFC WIND (KT)**





# ZDC CWSU WEATHER BRIEFING SHEET

VALID: 7/11Z - 7/19Z ISSUED: 11Z - 6/7/19 FORECASTER: TODD

Link to BRIEFING PDF: [weather.gov/media/zdc/brief/BRIEF.PDF](http://weather.gov/media/zdc/brief/BRIEF.PDF)

DURING NON-CWSU OPS HRS, CONTACT THE STERLING NWS OFFICE FOR UPDATES: 703-996-2202

WEATHER SYNOPSIS: COLD FRONT ACROSS S VA DRIFTING SOUTHWARD. SHOWERS ON THE INCREASE AREAS S OF DC THIS MRNG...ISOLD TS PSBL. TS INCRS AFT 15Z FORMING E-W BANDS BY 17Z.

**ZDC ENROUTE WX HAZARDS BY AREA (PIREPS REQUESTED IF AREA HAS A "X")**  
[X = HAZARD IS OCCURRING OR FORECAST TO OCCUR FOR THAT AREA IN NEXT 8 HOURS]

HAZARD	AREAS (click to view map)						SUMMARY OF HAZARD
	1	2	3	4	5	6	
ICING	X	X	X	X	X	X	OUTSD SHRA/TS: OCNL LGT-MOD FRZ-FL250 S OF DC. FRZ LEVEL 130 N - 150 S ZDC
TURBULENCE	X	X	X	X	X	X	OUTSD SHRA/TS: LGT-MOD ABV FL270.
COMPRESSION/ LLWS							
CIG BLW 050/ VIS BLW 3SM		X	X		X	X	SOME IFR/MVFR CIGS SOME VIS FOG THIS MRNG.
TSRA	X	X	X	X	X	X	ISOLD TS THIS MRNG S 3/4 ZDC. TS BEGIN TO INCRS SAME AREA AFT 15Z FORMING E-W BANDS BY 17Z. TOPS FL300'S; FL350-450 AFT 16Z. MOVG NE-N 10-20KT.

TERMINAL WX HAZARDS/IMPACTS - FOR THE LATEST TAFS, PLEASE VISIT:

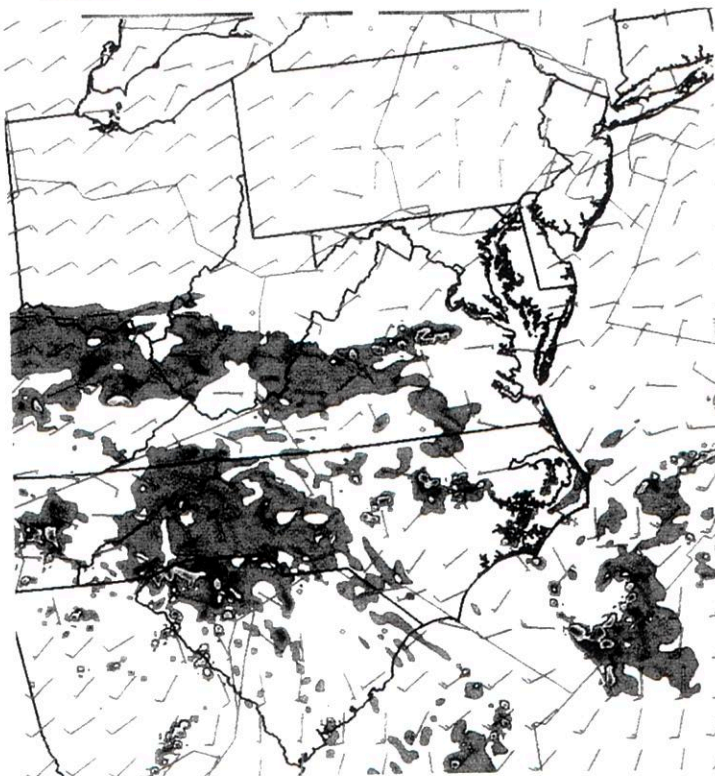
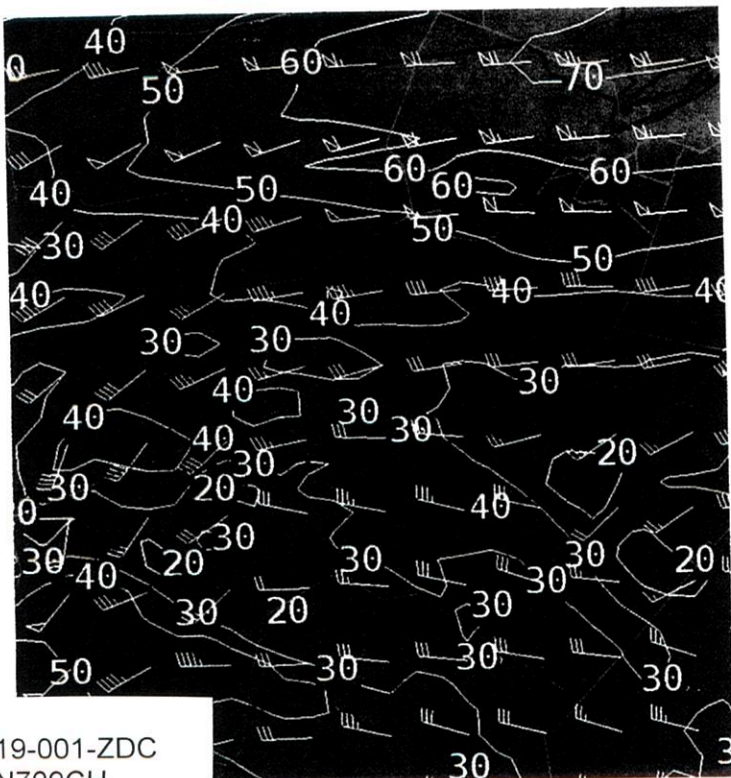
<https://www.aviationweather.gov/taf>

[X = HAZARD/IMPACT IS FORECAST AT ONE OR MORE TERMINAL(S) IN NEXT 8 HRS]

TERMINALS	SFC WIND/WX HAZARDS			
	SFC WINDS	PRECIP	MVFR-LIFR	LLWS/ COMPRSN
IAD/DCA/BWI	N-NE 5-10KT			
RIC/ORF/PHF	N-NE 3-10KT	INCRSG SHRA/PSBL TS AFT 15Z		
ROA/CHO/LYH	N-NE 4-8KT	INCRSG SHRA/PSBL TS AFT 15Z		
RDU/CLT/GSO	VRB 5KT	INCRSG SHRA/PSBL TS AFT 15Z	OCNL MVFR	
EWR/JFK/LGA	N-NE 5-10KT			
PHL	N-NE 5-10KT			
BOS	N-NE 4-8KT			
ATL	SE-S 10KT; SW 8KT AFT 16Z	SHRA...EMBD ISOLD TS	IFR-->MVFR	

15Z FCST FL350 WIND (KT)

16Z FCST RADAR / SFC WIND (KT)







# ZDC CWSU WEATHER BRIEFING SHEET



VALID: 7/19Z - 8/03Z ISSUED: 19Z - 6/7/19 FORECASTER: RICK

Link to BRIEFING PDF: [weather.gov/media/zdc/brief/BRIEF.PDF](http://weather.gov/media/zdc/brief/BRIEF.PDF)

**DURING NON-CWSU OPS HRS, CONTACT THE STERLING NWS OFFICE FOR UPDATES: 703-996-2202**

**WEATHER SYNOPSIS:** COLD FRONT ACROSS S VA DRIFTING SOUTHWARD. SHOWERS N OF FRONT WITH WDLY SCT TS SOUTH OF FRONT.

**ZDC ENROUTE WX HAZARDS BY AREA (PIREPS REQUESTED IF AREA HAS A "X")**  
[X = HAZARD IS OCCURRING OR FORECAST TO OCCUR FOR THAT AREA IN NEXT 8 HOURS]

HAZARD	AREAS (click to view map)						SUMMARY OF HAZARD
	1	2	3	4	5	6	
ICING	X			X		X	OUTSD SHRA/TS: OCNL LGT-MOD 150-FL250.
TURBULENCE	X	X	X	X	X	X	OUTSD SHRA/TS: LGT-MOD ABV FL300.
COMPRESSION/ LLWS							
CIG BLW 050/ VIS BLW 3SM	X	X			X	X	AREAS OF IFR/MVFR CIGS.
TSRA		X	X				WDLY SCT TS MAINLY E NC / SE VA. TOPS FL400. MOVG NE-N 5 KT.

**TERMINAL WX HAZARDS/IMPACTS - FOR THE LATEST TAFS, PLEASE VISIT:**

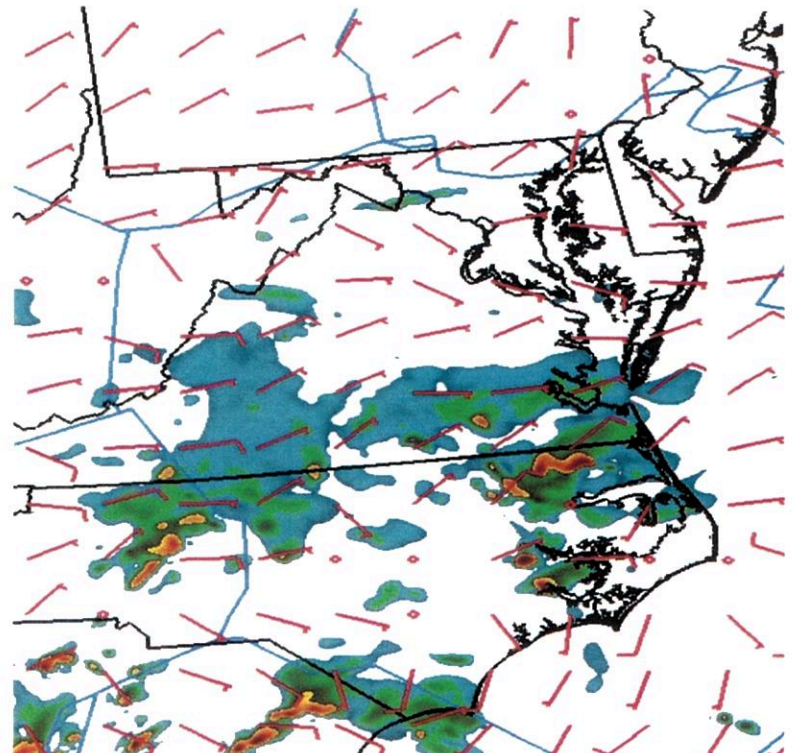
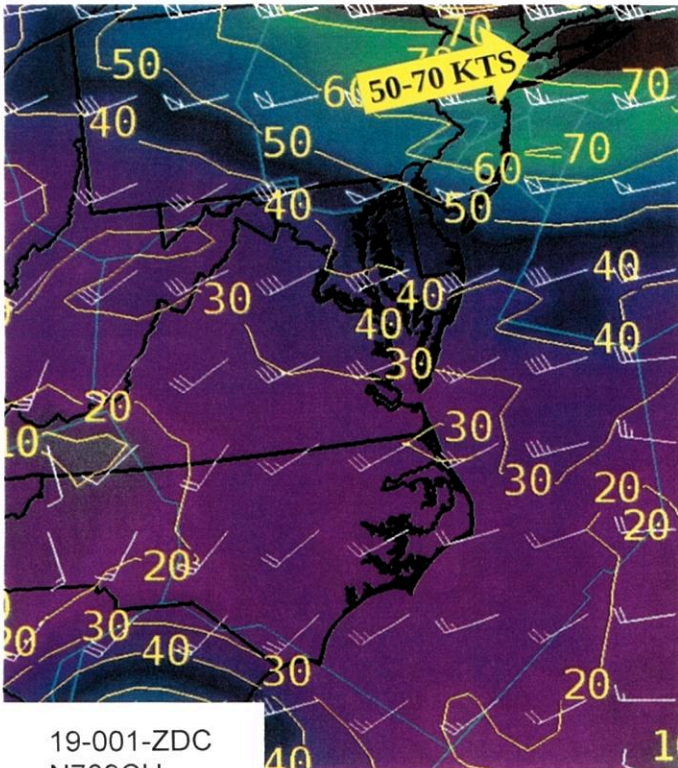
<https://www.aviationweather.gov/taf>

[X = HAZARD/IMPACT IS FORECAST AT ONE OR MORE TERMINAL(S) IN NEXT 8 HRS]

TERMINALS	SFC WIND/WX HAZARDS			
	SFC WINDS	PRECIP	MVFR-LIFR	LLWS/ COMPRSN
IAD/DCA/BWI	N-NE 5-10 KT			
RIC/ORF/PHF	N-NE 4-10 KT	TS NEAR RIC/PHF TIL 22Z	LCL MVFR CIGS	
ROA/CHO/LYH	E-NE 4-10 KT	VCTS LYH	LCL MVFR CIGS	
RDU/CLT/GSO	E-SE 5-10 KT	TS	LCL MVFR CIGS	
EWR/JFK/LGA	E-SE 4-10 KT			
PHL	E 5-10 KT			
BOS	SE 5-10 KT			
ATL	SW 5-15 KT	TS TIL 23Z		

15Z FCST FL350 WIND (KT)

16Z FCST RADAR / SFC WIND (KT)



# CWA'S Issued from ZDC

FAUS21 KZDC 071628

ZDC1 CWA 071625

ZDC CWA 101 VALID UNTIL 071700

FROM 20SW CSN-40NNE ORF-20WSW ORF-25NNE LYH-20SW CSN  
DEVELOPING AREA OF SHRA WITH EMBEDDED TSRA. TOPS TO FL380 MOVING NE  
10KT. IMPACTS TO J14 / RIC. FURTHER DEVELOPMENT POSSIBLE THROUGH  
17Z.\*

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FAUS22 KZDC 071632

ZDC2 CWA 071630

ZDC CWA 201 VALID UNTIL 071700

FROM 30N RUD-40E ECG-55SSE ECG-15SW RDU-30N RDU  
AREA OF DEVELOPING TSRA MOVG NE 10KT W/ TOPS AROUND FL400. IMPACTS  
TO J55 J121 J174. ADDITIONAL DEVELOPMENT LIKELY THROUGH 17Z.\*

FAUS22 KZDC 071635

ZDC2 CWA 071630 COR

ZDC CWA 201 VALID UNTIL 071700

FROM 30N RDU-40E ECG-55SSE ECG-15SW RDU-30N RDU  
AREA OF DEVELOPING TSRA MOVG NE 10KT W/ TOPS AROUND FL400. IMPACTS  
TO J55 J121 J174. ADDITIONAL DEVELOPMENT LIKELY THROUGH 17Z. COR  
COORDINATE.\*

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FAUS22 KZDC 071701

ZDC2 CWA 071700

ZDC CWA 202 VALID UNTIL 071800

FROM 25WNW ECG-25ENE ECG-65ENE ILM-25WNW ECG  
AREA OF DEVELOPING TSRA MOVG NE 10KT W/ TOPS TO AROUND FL400.  
IMPACTS TO J121 J174. ADDITIONAL DEVELOPMENT LIKELY THROUGH 18Z.\*

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# Federal Aviation Administration

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## Memorandum

Date: May 14, 2019  
To: Distribution List  
From: Kevin Paradis 703-771-3511  
Subject: ERAM Release Letter

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## Washington ARTCC

### ERAM Release w323a523 eae1300p system for 5/23/2019

Effective May 23, 2019 a new ERAM system is available for operational use.

Following is the system release information:

ERAM Release: w323a523      Software Level: eae1300p

ERAM Fallback System ID: w323a425      Software Level: eae1300p

**Call the National Helpdesk if considering an ERAM fallback (800-377-0308) as national impact would need to be assessed due to distributed adaptation.**

Special instructions for the NOMs:

**After promotion to any new system, please execute the text file "STARTUP."  
Effective 5/21, ILM APCH will transition to STARS. The M&C Display will be updated to reflect this in the following (6/20) system.**

Tech Ops:

**An EBUS map CD is available.**

Issue#: 199865 Title: ZNY\_ERAM: CON OPS TERM PHL - ZDC ARR 09ACY TRUMPS ZNY AAR PA130 @ ARD  
AAR 09ACY - Extended route into ZNY airspace, per SARBOARD Mtg. Extended to ETX.

Issue#: 206013 Title: ZDC\_ERAM: Second FSP for sector 40  
Per attached requirement, adapted a second FSP at sector 40 (OMIC) for test and possible Flight Data use.

Issue#: 206011 Title: ZDC\_ERAM: Adapt ZJX STARS facility  
Adapted ZJX STARS facility FFF as a neighboring ARTS using ZMA's adaptation as a template.

Issue#: 205411 Title: ZDC\_ERAM: PHL offload  
Modify offload ADR PHL01 & PHL02, add four more as follows:  
PHL01 field 10 alphas ..DQO..BELAY..MORTY..LITME..HIRCK..JDUBB..RRSIN., t-fix RRSIN, ARTS 1BB @DQO/MJD @RRSIN  
PHL04 field 10 alphas ..DQO..BELAY..MORTY..LITME..HIRCK..JDUBB..MELTN., t-fix MELTN, ARTS 1BB @DQO/MJD @MELTN  
PHL08 field 10 alphas ..DQO..BELAY..MORTY..LITME..HIRCK..CLTCH..KERRK., t-fix KERRK, ARTS 1BB @DQO/MCL @KERRK  
PHL09 field 10 alphas ..DQO..BELAY..MORTY..LITME..HIRCK..SCRAM..WALCE., t-fix WALCE, ARTS 1BB @DQO/MSC @WALCE  
PHL02 field 10 alphas ..DQO..BELAY..MORTY..FOXHL..OTTTO., t-fix OTTTO, ARTS 1BB @DQO/MOT @OTTTO  
PHL05 field 10 alphas ..DQO..BELAY..MORTY..FOXHL..RAMAY., t-fix RAMAY, ARTS 1BB @DQO/MRM @RAMAY  
No posting points except KPHL departure procedure. Added all to RG 00. Excluded all from restriction ZDC.PHL\_DEPT\_ZNY/04\_A\_VIA\_MXE\_MURPH\_240.  
PHL01/04/08/09 send ARTS correctly at all altitudes. PHL02/05 send ARTS correctly AOA FL180 because OTTTO/RAMAY are within PCT AOB 170.

Issue#: 205189 Title: ZDC\_ERAM: Modify CDR routes for the 5/23/18 Interim  
Modified 21 CDR routes with fix FKN to COUPN. Added SPLAT \* after KRDU on the RDUEWR10 CDR.  
Removed SPLAT \* for RDUBDL11, RDUBDLYK, RDUBOS20 and RDUPVD10.

Issue#: 205112 Title: ZDC\_ERAM: ZDC Update of PCT TRACON contingency  
Updated ZDC TRACON geomap PCT810 using the TRACON map tool. Successfully compared to 4/25 release using GeoRam tool. New and revised items noted.

Issue#: 204936 Title: ZDC\_ERAM: Remove supplemental geomap lines surrounding QCA test sort cells  
Removed supplemental geomap lines surrounding QCA test sort cells from all applicable maps.

Issue#: 204879 Title: ZDC\_ERAM: Add recent weather reporting airports to altimeter station list

Added the following airports to the altimeter station list:

AFJ, BBP, BLM, CDN, CKI, CKZ, CQW, DCM, DYL, EQY, FDW, FFA, FWN, GGE, HVS, HYW, I16, JFZ, LDJ, LKR, LOM, MAO, MPO, MYR, RVL, SMS, UKF, UKT, W13, W29, W31, W63, W75, W78, W81, W96, XLL, 22N, 2G4, 2G9, 33N, 6L4, 7W4, 7W6, 8W2

Removed the weather reporting station check from airport parameters for the following airports (per Sean O'Grady ZDC FTR):

FWQ, 48I, 9D4.

Issue#: 204763 Title: ZDC\_ERAM: 01DTW AAR and DTW10 APR

Duplicated AAR 01DTW as 02DTW. AAR 02DTW adapted with Content Criteria of ..MOL..TARCI..

In addition, for 02DTW, the Crossing Line was deleted and J24 was removed from Field 10.

Issue#: 206009 Title: ZDC\_ERAM: Update Stolen Aircraft May

Updated Stolen Aircraft. Added N1407L, N2763R and N52BK to the list.

Issue#: 205639 Title: ZDC\_ERAM: Stereo Flight Plan Changes

Stereo Routes:

Modified: ECHO1, FVX02, LFI300, LFI301, LFI302, LFI303, LFI304, LFI305, LFI306, LFI307, LFI308, LFI311, LFI312, LFI314, LFI315, LFI316, LFI317, FLUSH, LFIGDOG, AORDR2, AORDR3, AORDR4, AORDR5

Added: LFI309, LFI310, LFI313

Deleted: LFI300A, LFI301A, LFI302A, LFI303A, LFI304A, LFI305A, LFI307A, LFI314A

Issue#: 204055 Title: ZDC\_ERAM: GA Flight plans from IAD through the FRZ - Add Business Jet to Aircraft Class Criteria ZDCA

Added the following NATJ aircraft types to ZDCA also (See attached docs):

A158 A178 A37 A700 A743 B2 74S BA11 BD10 BD5J BER2 BER4 BLCF BSCA BUC C1 C101 C135 C141 C15 C17 C22J C5 C55B C5M C919 CAJ CKUO CNBR DC85 DC86 DC87 DC91 DC92 DC93 DC94 DC95 DJET E3CF E3TF E6 E737 E767 EM10 EVIC F1 F100 F106 F117 F8 F9F FA5X FA8X G250 G2GL G45G GA5C GA6C GNAT GSPN HDJT I22 IA63 IL28 IR99 J8A JAST JH7 JSQA K35E K35R K8 KC2 KC39 KE3 L15 L159 L39 LCA LEOP LJ70 LJ85 LTNG M15 M17 M326 M55 MC23 METR MG17 MG21 MG23 MG25 MG29 MG31 MG44 MGAT MH02 MICO MIR2 MIRA MRF1 MRJ7 MRJ9 MS76 MYA4 P1 P8 PA47 PC24 PRTS Q5 R135 R721 R722 RFAL RJ1H ROAR S200 S210 S211 S3 S37 S601 SATA SHAW SJ30 SJET SMB2 SP33 SR71 SS2 SSAB STRK SU17 SU7 SU95 SWIF T1 T2 T204 T33 T334 TJET TOR TS11 TZR VAMP VANT VAUT VF14 VIPJ VMT VNOM VULC WB57 WHK2 WHKN X55 Y130 Y141 YK28 YK30 YK38 YK42 YURO

Issue#: 203390 Title: ZDC\_ERAM: No pref departure for RPA4582

ADR GRI3E, D-LINE DL365 modified to: 36030975N/080040073W 35385352N/079125884W

If you have any questions or concerns please contact Kevin Paradis, ZDC POFM at Office (703-771-3511) or Cell (304-839-2037).

SECTION 11.

Other

## UTC (Zulu) Time Conversion Chart

UTC (Zulu)	PST/ ALDT	PDT/ MST	MDT/ CST	CDT/ EST	EDT/ AST	ALST	HST
0000*	1600	1700	1800	1900	2000	1500	1400
0100	1700	1800	1900	2000	2100	1600	1500
0200	1800	1900	2000	2100	2200	1700	1600
0300	1900	2000	2100	2200	2300	1800	1700
0400	2000	2100	2200	2300	0000*	1900	1800
0500	2100	2200	2300	0000*	0100	2000	1900
0600	2200	2300	0000*	0100	0200	2100	2000
0700	2300	0000*	0100	0200	0300	2200	2100
0800	0000*	0100	0200	0300	0400	2300	2200
0900	0100	0200	0300	0400	0500	0000*	2300
1000	0200	0300	0400	0500	0600	0100	0000*
1100	0300	0400	0500	0600	0700	0200	0100
1200	0400	0500	0600	0700	0800	0300	0200
1300	0500	0600	0700	0800	0900	0400	0300
1400	0600	0700	0800	0900	1000	0500	0400
1500	0700	0800	0900	1000	1100	0600	0500
1600	0800	0900	1000	1100	1200	0700	0600
1700	0900	1000	1100	1200	1300	0800	0700
1800	1000	1100	1200	1300	1400	0900	0800
1900	1100	1200	1300	1400	1500	1000	0900
2000	1200	1300	1400	1500	1600	1100	1000
2100	1300	1400	1500	1600	1700	1200	1100
2200	1400	1500	1600	1700	1800	1300	1200
2300	1500	1600	1700	1800	1900	1400	1300
2400	1600	1700	1800	1900	2000	1500	1400

The time \*0000 and 2400 are interchangeable. The time 2400 is associated with the date of the day ending, and 0000 with the day just starting.

- UTC** = Coordinated Universal Time, or Zulu
- PST** = Pacific Standard Time (UTC - 8 hours)
- ALDT** = Alaskan Daylight Time (UTC - 8 hours)
- PDT** = Pacific Daylight Time (UTC - 7 hours)
- MST** = Mountain Standard Time (UTC - 7 hours)
- MDT** = Mountain Daylight Time (UTC - 6 hours)
- CST** = Central Standard Time (UTC - 6 hours)
- CDT** = Central Daylight Time (UTC - 5 hours)
- EST** = Eastern Standard Time (UTC - 5 hours)
- EDT** = Eastern Daylight Time (UTC - 4 hours)
- AST** = Atlantic Standard Time (UTC - 4 hours)
- ALST** = Alaskan Standard Time (UTC - 9 hours)
- HST** = Hawaiian Standard Time (UTC - 10 hours)

19-001-ZDC

N709CH