



DFW	SOUTH_VFR_BAL	DFW	ARR: 200	DAL	ARR: 42
RIO	W CID MFN	M/STA	M/ETA		
BP					
>MXP1094	L 949	BP	1909	1909	
>AAL1998	H 843	BP	1825	1825	
>AAL403	L 504	BP	1823	1823	
>ASE656	S 983	BP	1818	1818	
N70HJ	S 790	BP	1801	1801	
EGE744	L 839	BP	1804	1804	AAL744
>DAL930	L 858	BP	1804	1804	370 C
AAL744	L 845	BP	1747	1747	M080 504
AAL802	L 516	BP	1745	1744	
UAL478	L 894	BP	1744	1744	
#AAL1706	L 478	BP	1740	1734	
@AAL242	L 079	BP	1738	1732	
@AAL48	L 009	BP	1737	1728	
#AAL1878	L 830	BP	1736	1735	
@AAL50	L 605	BP	1734	1733	
@AAL1798	L 427	BP	1735	1730	
@AAL1694	L 123	BP	1733	1729	
@ASE446	S 884	BP	1728	1726	DAL478
>DAL1243	H 505	BP	1730	1721	350 C
@AAL1668	L 188	SEP	1729	1726	A32 544
~DAL456	L 541	BP	1726	1723	
~AAL222	L 810	BP	1725	1719	
@DAL1514	L 647	BP	1724	1723	
@SWA41	L 093	BP	xxxx	1722	
@V6D112	L 278	BP	xxxx	xxxx	
>AAL318	L 964	BP	1723	1720	
>ASE622	L 701	BP	xxxx	1718	
>DAL928	L 853	BP	xxxx	1716	
>DAL994	L 811	BP	xxxx	1708	
>SWA1063	L 536	BP	xxxx	1705	

Integration of Weather Information and ATM Tools

October 9, 2008
Matt Fronzak



Integration of Weather Information and ATM Tools

- Weather Information/ATM Tool Integration – a NextGen “given.”
 - NAS OPS subcommittee of REDAC formed a work group to explore this topic.
 - WAIWG explored the topic for over 1 year and reported back to REDAC in fall of 2007.
- Why integrate Weather Information into ATM Decision Support Tools?
- What does Weather Information/ATM Integration mean?

Why Integrate Weather Information into ATM Tools?

- If you believe that tomorrow's NAS will be a CDM-type environment, and that weather will continue to cause the majority of delays in the NAS, absent weather/ATM integration, all future CDM decision makers must be skilled aviation meteorologists.
 - CDM decision makers: air traffic managers/controllers, dispatchers, pilots.
 - (ROM) 20,000 air traffic controllers/managers, 5,000 dispatchers, 500,000 pilots, 500 operational aviation meteorologists in the U.S.
 - Significant training burden to produce 20,000 + 5,000 + 500,000 – 500 = 524,500 new operational aviation meteorologists.
- NextGen assumption/dependency – common weather information (including forecasts).
 - Very little room for meteorological difference of opinion.

Too few meteorologists, too many forecast opinions.

What does Weather Information/ATM Integration Mean?

- Simple, low tech/near term – position all appropriate sources of weather information within reach of the air traffic decision maker.
 - Human-interpreted/human-integrated forecast → Human air traffic decision.
 - Mental integration of weather and air traffic information is very difficult.
- Moderately complex/near and mid term – provide air traffic management guidance (which considers machine-interpreted weather information) to human air traffic decision maker.
 - Machine-interpreted/machine-integrated forecast → Human air traffic decision
 - Route Availability Planning Tool (RAPT).
- High tech/end game – machine-produced air traffic management decisions in which machine-to-machine weather information has been interpreted and considered.
 - Machine-interpreted/machine-integrated forecast → Machine air traffic decision with human oversight.

Phased approach, appropriate for transitioning.