

The MITRE Corporation's Center for Advanced Aviation System Development (CAASD) was tasked with producing quarterly reports of corridor compliance for jet departures from Boston (BOS) Logan's Runway 27. The quarterly reports cover findings for months July 2007 through March 2008.



Background

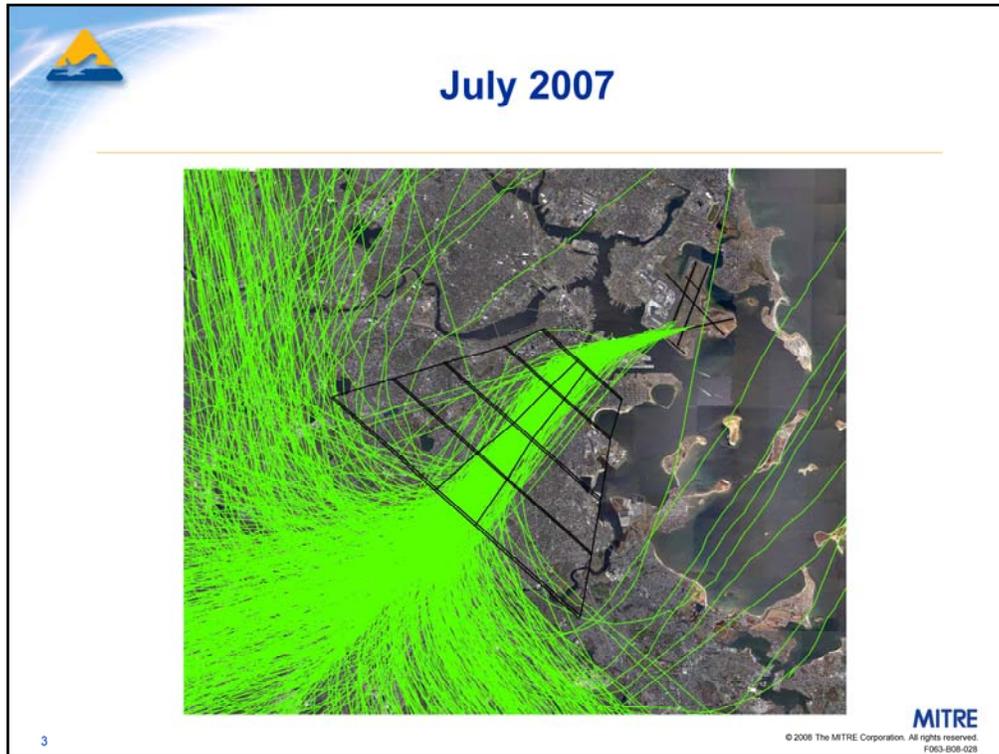
- **The MITRE Corporation’s Center for Advanced Aviation System Development (CAASD) was tasked to conduct an analysis of jet departures from Boston Logan’s Runway 27**
- **The results of this analysis were presented to the Runway 27 Advisory Committee in March 2007, with a follow-up presentation in November 2007**
- **This presentation provides the latest quarterly reports (July 2007-March 2008)**

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F063-B08-028

This briefing is a presentation of the ongoing findings for percent compliance of jet aircraft departing through the Runway 27 departure corridor.

For additional information on the data sources, analysis methodology, and earlier findings, see MITRE briefing “Boston Runway 27 Compliance Update,” F063-B07-022.

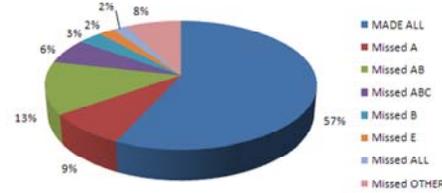


This graphic displays all flight tracks that were determined to be Runway 27 jet departures for the month of July 2007. There were 563 total tracks. 56.8%, or 320 tracks, made it through all of the center gates.



July 2007 (concluded)

Top 7 Compliance Categories:



Monthly Compliance Totals:

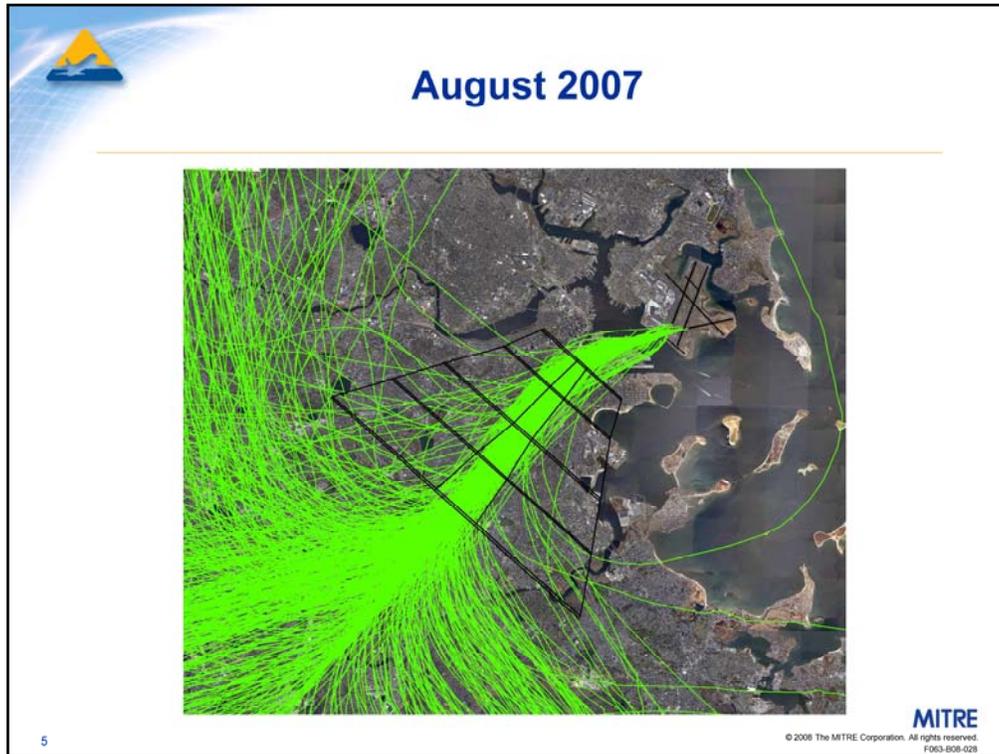
Year	Month	Total # of Tracks	Total # of Tracks Through All Gates	Percent of Tracks Through All Gates	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Average through Each Gate
2006	July	950	609	64.1	631	757	874	916	890	71.7	79.7	92.0	95.4	92.6	86.5
2006	August	874	568	65.0	641	684	801	848	823	73.3	78.3	91.6	97.0	94.2	86.9
2006	September	1202	797	66.3	869	935	1088	1154	1137	72.3	77.8	90.5	96.0	94.6	86.2
2006	October	3039	1848	60.8	2161	2338	2649	2839	2756	71.1	76.9	87.2	93.4	90.7	83.9
2006	November	1792	1111	62.0	1278	1384	1600	1699	1645	71.3	77.2	89.3	94.8	91.8	84.9
2006	December	1191	727	61.0	855	912	1019	1084	1063	71.8	76.6	85.6	91.0	89.3	82.8
2007	January	2261	1387	61.3	1656	1785	1949	2069	2022	73.2	78.9	86.2	91.5	89.4	83.9
2007	February	1167	706	60.6	867	934	1016	1070	1028	73.4	80.0	87.1	91.7	88.1	84.1
2007	March	478	252	52.7	338	362	394	411	376	70.7	75.7	82.4	86.0	78.7	78.7
2007	April	1059	625	59.0	742	810	921	998	952	70.1	76.5	87.0	94.2	89.9	83.5
2007	May	641	379	59.1	423	481	566	609	592	66.0	75.0	88.3	95.0	92.4	83.3
2007	June	442	268	60.6	318	333	377	404	394	71.9	75.3	85.3	91.4	89.1	82.6
2007	July	563	320	56.8	369	401	482	527	517	65.5	71.2	85.6	93.6	91.8	81.6

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Note that there were approximately 400 fewer Runway 27 jet departures in July 2007 than in July 2006.

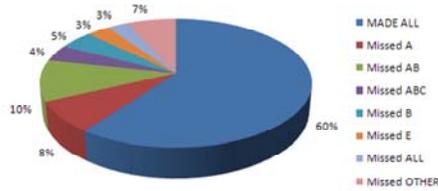


This graphic displays all flight tracks that were determined to be Runway 27 jet departures for the month of August 2007. There were 804 total tracks. 60.2%, or 484 tracks, made it through all of the center gates.



August 2007 (concluded)

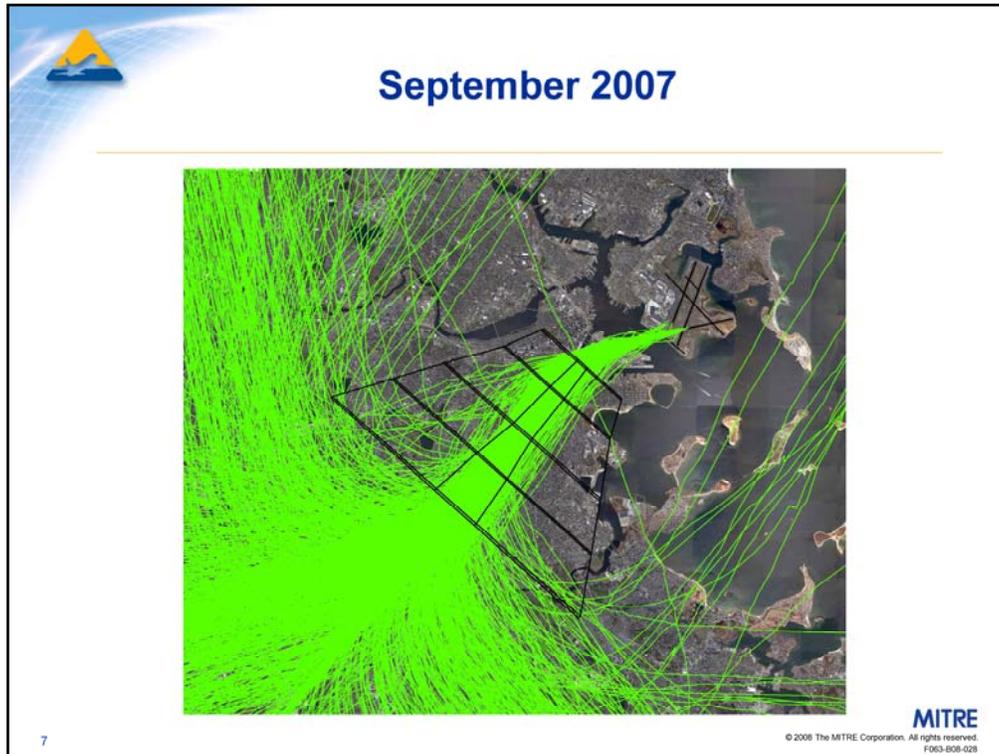
Top 7 Compliance Categories:



Monthly Compliance Totals:

Year	Month	Total # of Tracks	Total # of Tracks Through All Gates	Percent of Tracks Through All Gates	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Average Percent through Each Gate
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2006	December	1191	727	61.0	855	912	1019	1084	1063	71.8	76.6	85.6	91.0	89.3	82.8
2007	January	2261	1387	61.3	1656	1785	1949	2069	2022	73.2	78.9	86.2	91.5	89.4	83.9
2007	February	1167	706	60.5	857	934	1016	1070	1028	73.4	80.0	87.1	91.7	88.1	84.1
2007	March	478	262	54.7	338	362	394	411	376	76.7	76.7	82.4	86.0	78.7	78.7
2007	April	1059	625	59.0	742	810	921	998	952	70.1	76.5	87.0	94.2	89.9	83.5
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2007	July	563	320	56.8	369	401	482	527	517	65.5	71.2	85.6	93.6	91.8	81.6
2007	August	804	484	60.2	572	597	709	751	731	71.1	74.3	88.2	93.4	90.9	83.6

The number of Runway 27 jet departures in August 2007 was similar to the number in August 2006.

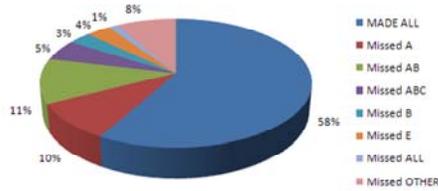


This graphic displays all flight tracks that were determined to be Runway 27 jet departures for the month of September 2007. There were 1,238 total tracks. 58.2%, or 720 tracks, made it through all of the center gates.



September 2007 (concluded)

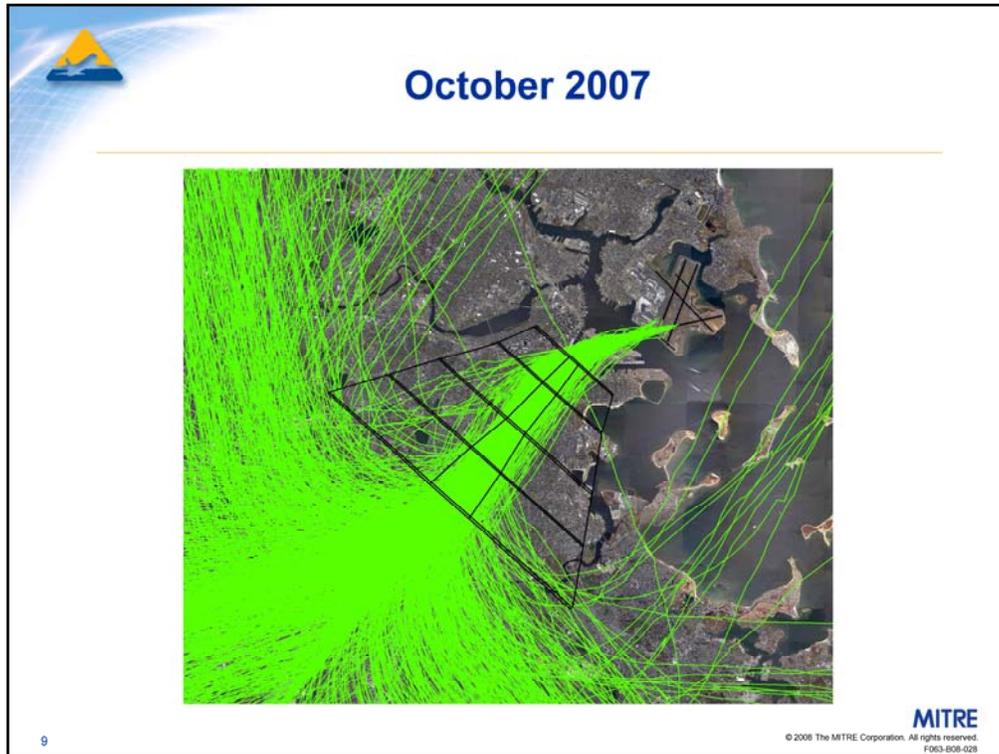
Top 7 Compliance Categories:



Monthly Compliance Totals:

Year	Month	Total # of Tracks	Total # of Tracks Through All Gates	Percent of Tracks Through All Gates	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Average Percent through Each Gate
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2006	October	3039	1848	60.8	2161	2338	2649	2839	2756	71.1	76.9	87.2	93.4	90.7	83.9
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2006	December	1191	727	61.0	855	912	1019	1084	1063	71.8	76.6	85.6	91.0	89.3	82.8
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2007	August	804	484	60.2	572	597	709	751	731	71.1	74.3	88.2	93.4	90.9	83.6
2007	September	1238	720	58.2	859	934	1086	1171	1127	69.4	75.4	87.7	94.6	91.0	83.6

The number of Runway 27 jet departures in September 2007 increased slightly compared to September 2006.

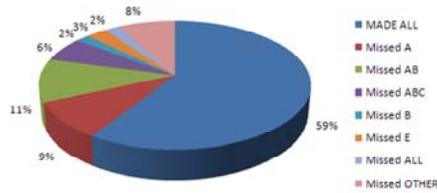


This graphic displays all flight tracks that were determined to be Runway 27 jet departures for the month of October 2007. There were 599 total tracks. 59.1%, or 354 tracks, made it through all of the center gates.



October 2007 (concluded)

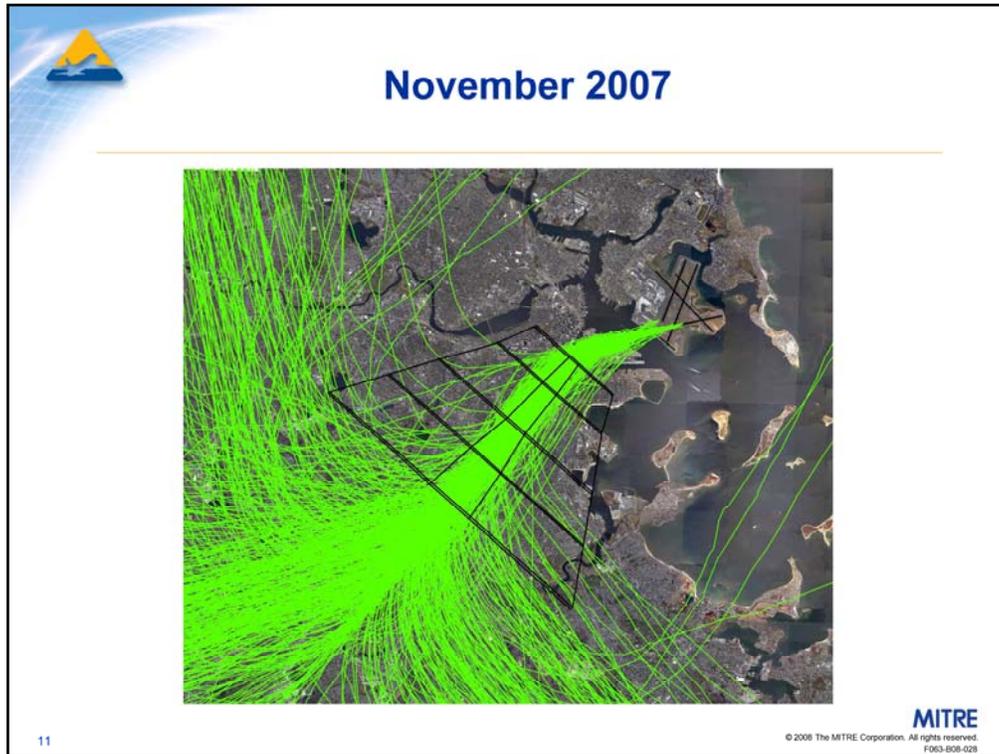
Top 7 Compliance Categories:



Monthly Compliance Totals:

Year	Month	Total # of Tracks	Total # of Tracks Through All Gates	Percent of Tracks Through All Gates	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Average Percent through Each Gate
2006	October	3039	1948	60.8	2161	2338	2649	2839	2756	71.1	76.9	87.2	93.4	90.7	83.9
2006	November	1792	1111	62.0	1278	1384	1600	1699	1645	71.3	77.2	89.3	94.8	91.8	84.9
2006	December	1191	727	61.0	855	912	1019	1084	1063	71.8	76.6	85.6	91.0	89.3	82.8
2007	January	2261	1387	61.3	1656	1785	1949	2069	2022	73.2	78.9	86.2	91.5	89.4	83.9
2007	February	1167	706	60.5	857	934	1016	1070	1028	73.4	80.0	87.1	91.7	88.1	84.1
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2007	August	804	484	60.2	572	597	709	751	731	71.1	74.3	88.2	93.4	90.9	83.6
2007	September	1238	720	58.2	859	934	1086	1171	1127	69.4	75.4	87.7	94.6	91.0	83.6
2007	October	599	354	59.1	409	456	515	563	546	68.3	76.1	86.0	94.0	91.2	83.1

Note that there were approximately 2,400 fewer Runway 27 jet departures in October 2007 than in October 2006.

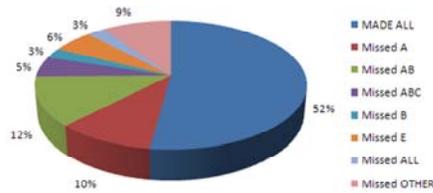


This graphic displays all flight tracks that were determined to be Runway 27 jet departures for the month of November 2007. There were 606 total tracks. 52.1%, or 316 tracks, made it through all of the center gates.



November 2007 (concluded)

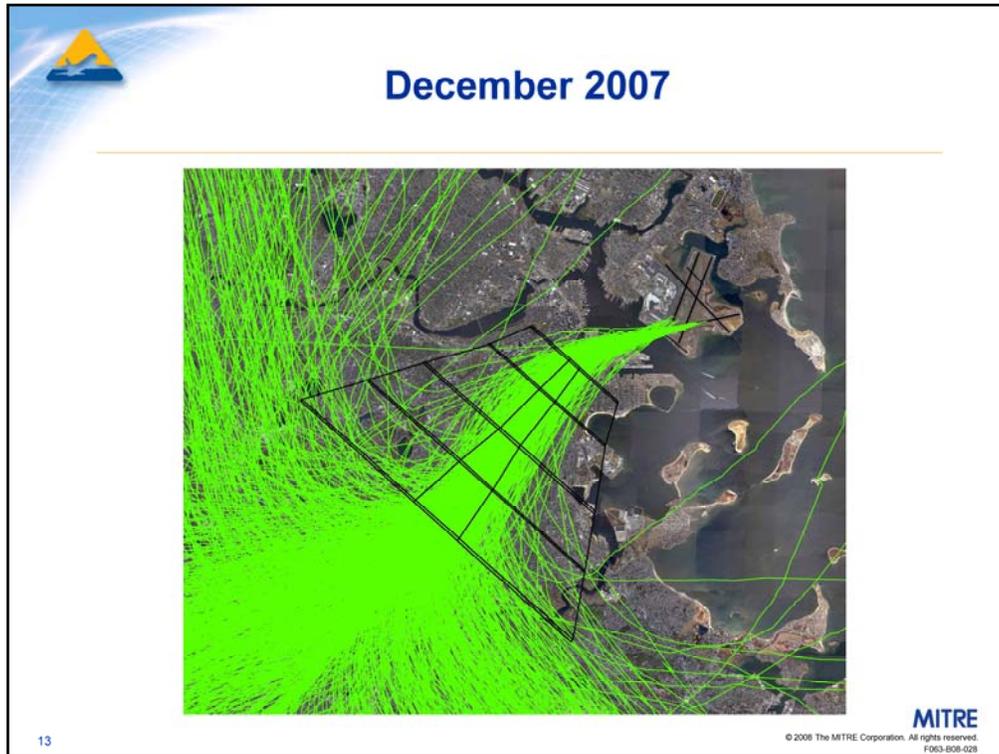
Top 7 Compliance Categories:



Monthly Compliance Totals:

Year	Month	Total # of Tracks	Total # of Tracks Through All Gates	Percent of Tracks Through All Gates	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Average Percent through Each Gate
2006	November	1752	1111	62.0	1278	1384	1600	1699	1645	71.3	77.2	89.3	94.8	91.8	84.9
2006	December	1191	727	61.0	855	912	1019	1084	1063	71.8	76.6	85.6	91.0	89.3	82.8
2007	January	2261	1387	61.3	1656	1785	1949	2069	2022	73.2	78.9	86.2	91.5	89.4	83.9
2007	February	1167	706	60.5	857	934	1016	1070	1028	73.4	80.0	87.1	91.7	88.1	84.1
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2007	October	599	354	59.1	409	456	515	563	546	68.3	76.1	86.0	94.0	91.2	83.1
2007	November	606	316	52.1	398	445	527	557	514	65.7	73.4	87.0	91.9	84.8	80.6

Note that there were approximately 1,200 fewer Runway 27 jet departures in November 2007 than in November 2006.

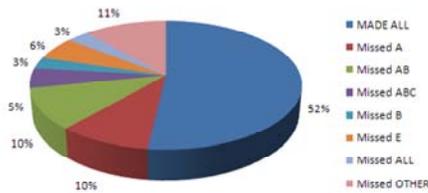


This graphic displays all flight tracks that were determined to be Runway 27 jet departures for the month of December 2007. There were 1,188 total tracks. 51.9%, or 616 tracks, made it through all of the center gates.



December 2007 (concluded)

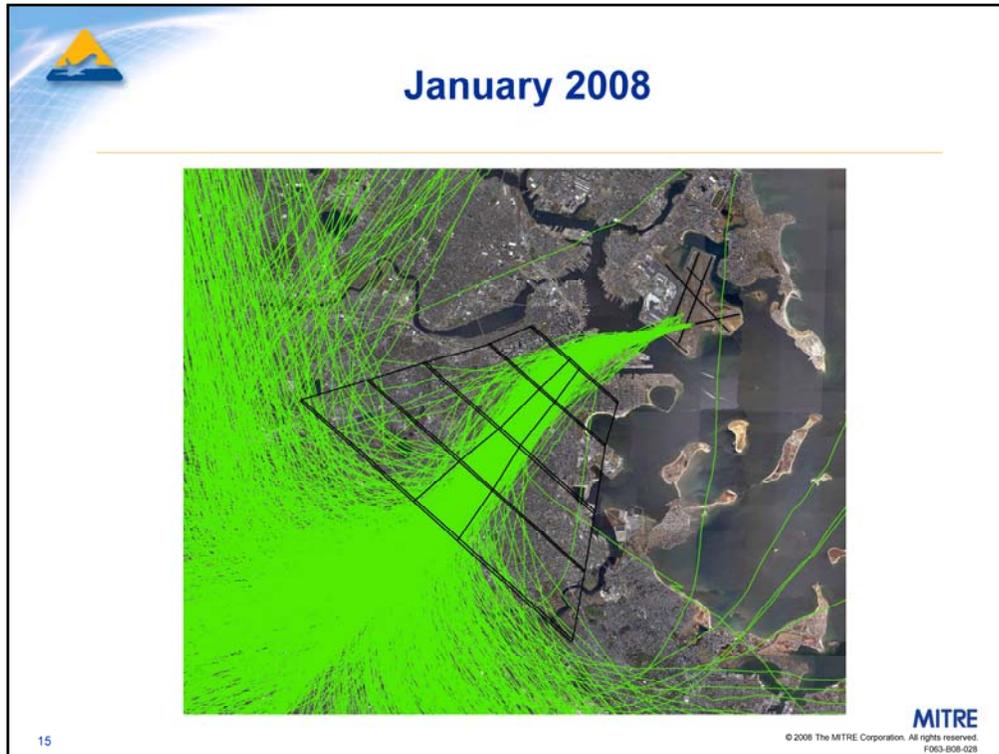
Top 7 Compliance Categories:



Monthly Compliance Totals:

Year	Month	Total # of Tracks	Total # of Tracks Through All Gates	Percent of Tracks Through All Gates	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Average Percent through Each Gate
2006	December	1151	727	61.0	855	912	1019	1084	1053	71.8	76.6	85.6	91.0	89.3	82.8
2007	January	2261	1387	61.3	1656	1785	1949	2069	2022	73.2	78.9	86.2	91.5	89.4	83.9
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2007	November	606	316	52.1	398	445	527	557	514	65.7	73.4	87.0	91.9	84.8	80.6
2007	December	1188	616	51.9	811	887	1001	1066	987	68.3	74.7	84.3	89.7	83.1	80.0

The number of flights in December 2007 were similar to the number of flights in December 2006.

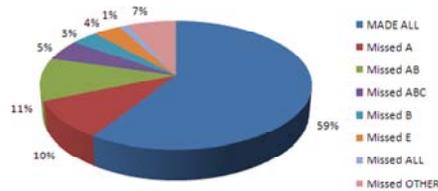


This graphic displays all flight tracks that were determined to be Runway 27 jet departures for the month of January 2008. There were 1,398 total tracks. 59.1%, or 826 tracks, made it through all of the center gates.



January 2008 (concluded)

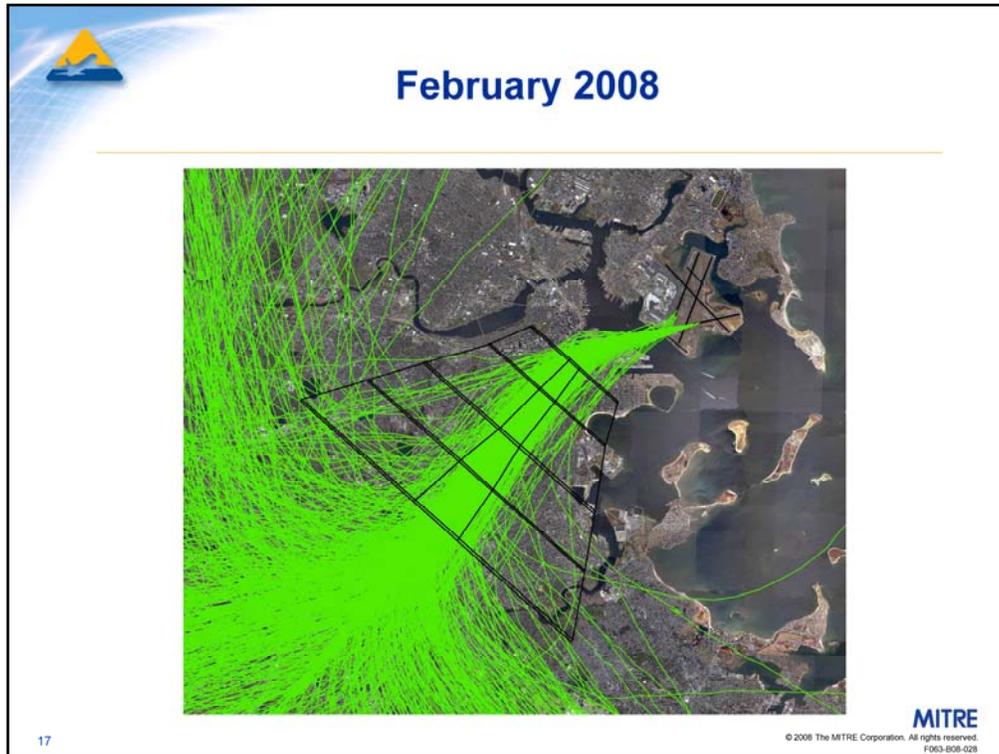
Top 7 Compliance Categories:



Monthly Compliance Totals:

Year	Month	Total # of Tracks	Total # of Tracks Through All Gates	Percent of Tracks Through All Gates	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Average through Each Gate
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2007	December	1188	616	51.9	811	887	1001	1066	987	68.3	74.7	84.3	89.7	83.1	80.0
2008	January	1398	826	59.1	969	1060	1237	1323	1271	69.3	75.8	88.5	94.6	90.9	83.8

Note that there were 863 fewer Runway 27 jet departures in January 2008 than in January 2007.

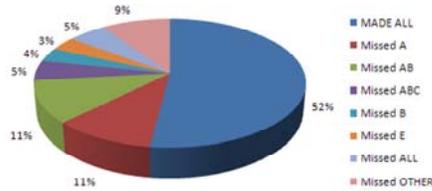


This graphic displays all flight tracks that were determined to be Runway 27 jet departures for the month of February 2008. There were 830 total tracks. 52%, or 432 tracks, made it through all of the center gates.



February 2008 (concluded)

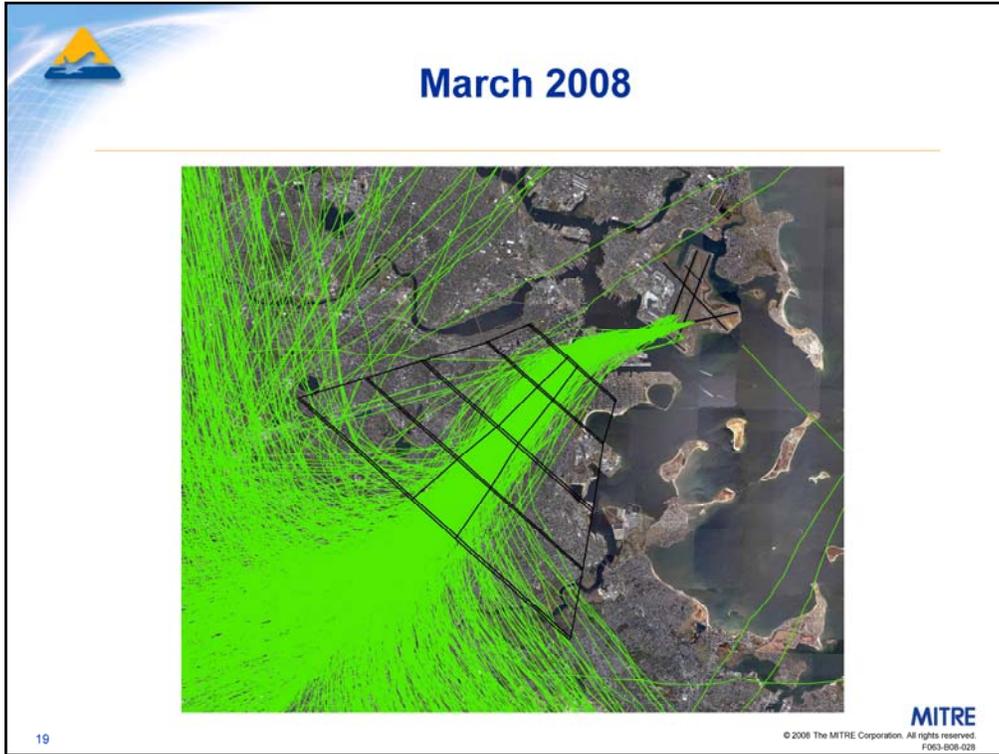
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2007	August	804	484	60.2	572	597	709	751	731	71.1	74.3	88.2	93.4	90.9	83.6
2007	September	1228	720	58.2	859	934	1086	1171	1127	69.4	76.4	87.7	94.6	91.0	83.6
2007	October	599	354	59.1	409	456	515	563	546	68.3	76.1	86.0	94.0	91.2	83.1
2007	November	606	316	52.1	398	445	527	557	514	65.7	73.4	87.0	91.9	84.8	80.6
2007	December	1188	616	51.9	811	887	1001	1066	987	68.3	74.7	84.3	89.7	83.1	80.0
2008	January	1398	826	59.1	969	1060	1237	1323	1271	69.3	75.8	88.5	94.6	90.9	83.8
2008	February	830	432	52.0	543	595	689	739	707	65.4	71.7	83.0	89.0	85.2	78.9

Note that there were 337 fewer Runway 27 jet departures in February 2008 than in February 2007.

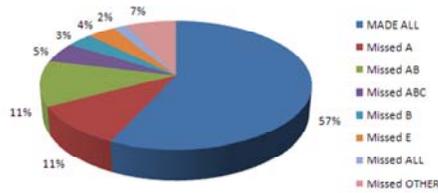


This graphic displays all flight tracks that were determined to be Runway 27 jet departures for the month of March 2008. There were 1,155 total tracks. 56.9%, or 657 tracks, made it through all of the center gates.



March 2008 (concluded)

Top 7 Compliance Categories:



Monthly Compliance Totals:

Year	Month	Total # of Tracks	Total # of Tracks Through All Gates	Percent of Tracks Through All Gates	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Gate A 1,400 ft	Gate B 2,200 ft	Gate C of 2,900 ft	Gate D 4,700 ft	Gate E 6,300 ft	Average Percent through Each Gate
2007	March	478	252	52.7	338	362	394	411	376	70.7	75.7	82.4	86.0	78.7	78.7
2007	April	1059	625	59.0	742	810	921	998	952	70.1	76.5	87.0	94.2	89.9	83.5
2007	May	641	379	59.1	423	481	566	609	592	66.0	75.0	88.3	95.0	92.4	83.3
2007	June	442	268	60.6	318	333	377	404	394	71.9	75.3	85.3	91.4	89.1	82.6
2007	July	563	320	56.8	369	401	482	527	517	65.5	71.2	85.6	93.6	91.8	81.6
2007	August	804	484	60.2	572	597	709	751	731	71.1	74.3	88.2	93.4	90.9	83.6
2007	September	1238	720	58.2	859	934	1086	1171	1127	69.4	75.4	87.7	94.6	91.0	83.6
2007	October	599	364	60.8	409	456	516	563	546	68.3	76.1	86.0	94.0	91.2	83.1
2007	November	606	316	52.1	398	445	527	557	514	65.7	73.4	87.0	91.9	84.8	80.6
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2008	January	1398	826	59.1	969	1060	1237	1323	1271	69.3	75.8	88.5	94.6	90.9	83.8
2008	February	830	432	52.0	543	595	689	739	707	65.4	71.7	83.0	89.0	85.2	78.9
2008	March	1155	657	56.9	780	856	1027	1094	1039	67.5	74.1	88.9	94.7	90.0	83.0

Note that the number of tracks increased from March 2007 from March 2008.



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