

**Project Identification:  
FSA New Features**



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## Acronym List

Acronym	Term
ACID	Aircraft Identification
AFP	Airspace Flow Program
DAS	Delay Assignment
GAAP	General Aviation Airport Program
GDP	Ground Delay Program
UDP	Unified Delay Program

## Introduction

This document discusses all new features implemented for Real Time Flight Schedule Analyzer (RT-FSA). The home page of RT-FSA is illustrated in Figure 1, where all AFP/GDP programs and Ground Stops are listed. The front page includes whether the program has had adaptive compression and if it's a current or cancelled event.

**Real-Time FSA**

What's New | Operations | Automation | Information | Procedures | Training | QA

- [Lookup Flight](#)
- [Help](#)

○ Adaptive Compression ON  
⊗ Adaptive Compression OFF  
● ALL OFF  
◆ Event Controlling Flights  
✗ Event NOT Controlling Flights

Current ADL Time : 09-30-2010 08:00:00.0

Current FSM Traffic Management Initiatives

[FCA001](#)  
○ No Adaptive Compression Reported  
◆ 1611 AFP UDP 1945-2145 ALL  
Last ADL received 1905z on 09/30/2010

[FCA004](#)  
○ No Adaptive Compression Reported  
◆ 1905 AFP UDP 1903-0100 ALL  
Last ADL received 1905z on 09/30/2010

[FCA005](#)  
○ No Adaptive Compression Reported  
◆ 1907 AFP UDP 1905-0100 ALL  
Last ADL received 1907z on 09/30/2010

[SFO](#)  
○ No Adaptive Compression Reported  
◆ 1556 GDP UDP 1553-2359 1775nm  
Last ADL received 1611z on 09/30/2010

[OAK](#)  
◆ 1847 Ground Stop 1842-1945 Internal  
Last ADL received 1907z on 09/30/2010

Cancelled FSM Traffic Management Initiatives

**Figure 1: Real-Time Flight Schedule Analyzer**

The FSA 9\_0 User's Guide is available as a complete reference for RT-FSA functions not included in this document. Select **Help** from the left side of the home page to open RT\_FSA 9\_0 online help in your browser. You also can access the online help from any RT-FSA component.

## Performance Report Updates

The Performance Report displays performance statistics by hour and is accessed by clicking the link of a program on the home screen. It aids in understanding why a program over or under performed.

## Pop-up Demand - Unassigned Report

In the Performance Report, under cancellations, there is now a **Pop -Up Demand - Unassigned** row in Figure 2. This new row includes the total number of pop-up flights, those that are not known when a program is issued, that are assigned to unassigned slots for a UDP or a GAAP program by hour. Clicking on a non-zero value in the Performance Report will produce the **Pop -Up Demand - Unassigned Report** below it. Values will turn red once they have been selected.

### FCABA2 Performance

Flight List Generated at 1818z on 09/21/2010

Original Start Time: 14:54z

Hour	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
FSM Program Rate	30	30	30	30	30	30	30	30	30	30
Number of Assigned Slots	0	8	6	13	10	10	9	19	15	2
Flights Controlled by Another Initiative	1	21	27	26	23	10	6	4	1	0
Cancellations	-0	-0	-2	-3	-0	-2	-0	-0	-1	-0
Pop-Up Demand - Unassigned	0	1	5	13	10	10	9	19	11	1
Pop-Up Demand - DAS	1	0	1	0	0	0	0	0	0	0
Extra Demand	10	95	78	34	47	25	9	7	5	2
Flights Arriving Prior to Their Control Hour	-0	-1	-5	-13	-10	-10	-9	-19	-11	-1
Flights Arriving After Their Control Hour	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
<b>Total Current Demand</b>	<b>11</b>	<b>123</b>	<b>104</b>	<b>57</b>	<b>70</b>	<b>33</b>	<b>15</b>	<b>11</b>	<b>9</b>	<b>3</b>
Number of Unassigned Slots	0	0	0	0	1	3	5	0	13	22
<b>Total Potential Demand</b>	<b>11</b>	<b>123</b>	<b>104</b>	<b>57</b>	<b>71</b>	<b>36</b>	<b>20</b>	<b>11</b>	<b>22</b>	<b>25</b>
Drop Outs	0	0	0	0	0	0	0	0	2	0

**Figure 2: Performance Report**

The new **Pop -Up Demand - Unassigned Report** in Figure 3 displays lead time (how far in advance the flight became known), unassigned slot delay, total delay, and unassigned slot delay for each popup flight for that particular hour. The lead time is expressed in HH:mm. The report also displays the total delay and average delay for all the pop-up flights that were assigned to unassigned slots under a particular UDP or GAAP program.

16:00 Hour Pop-Up Demand - Unassigned \*An asterisk indicates the flight has not yet departed.

ACID	Lead Time	Unassigned Slot Delay
DAL1481	-00:56	-21
AAL502	-02:26	-124
UAL1441	-00:50	-17
SKW6430	-03:50	-143
COA150	-00:46	-16
<b>Total Delay</b>		-321
<b>Average Delay</b>		-64

  

Totals for the Program	Unassigned Slot Delay	DAS Slot Delay
<b>Total Delay</b>	3307	360
<b>Average Delay</b>	41	180

**Figure 3: Pop-Up Demand - Unassigned Report**

### Pop-Up Demand – DAS

In addition, the Performance Report has added a new row, below **Pop-Up Demand – Unassigned** titled **Pop-Up Demand – DAS** in Figure 4. This row shows the total number of pop-up flights that are assigned to DAS type slots for an UDP or a GAAP program by hour.

### FCABA2 Performance

Flight List Generated at 1818z on 09/21/2010

Original Start Time: 14:54z

Hour	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
<b>FSM Program Rate</b>	30	30	30	30	30	30	30	30	30	30
Number of Assigned Slots	0	8	6	13	10	10	9	19	15	2
Flights Controlled by Another Initiative	1	21	27	26	23	10	6	4	1	0
Cancellations	-0	-0	-2	-3	-0	-2	-0	-0	-1	-0
Pop-Up Demand - Unassigned	0	1	5	13	10	10	9	19	11	1
<b>Pop-Up Demand - DAS</b>	1	0	1	0	0	0	0	0	0	0
Extra Demand	10	95	78	34	47	25	9	7	5	2
Flights Arriving Prior to Their Control Hour	-0	-1	-5	-13	-10	-10	-9	-19	-11	-1
Flights Arriving After Their Control Hour	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0
<b>Total Current Demand</b>	11	123	104	57	70	33	15	11	9	3
Number of Unassigned Slots	0	0	0	0	1	3	5	0	13	22
<b>Total Potential Demand</b>	11	123	104	57	71	36	20	11	22	25
<b>Drop Outs</b>	0	0	0	0	0	0	0	0	2	0

**Figure 4: Pop-Up Demand Unassigned Column**

Selecting a non-zero number in the **Pop-Up Demand – DAS** row will cause the



corresponding report to appear under the Performance Report. The **Pop-Up Demand DAS Report** in Figure 5 lists all flights for a particular hour with its corresponding lead time and DAS Slot Delay. The lead time is expressed in HH:mm. In addition, it sums and averages delay for all flights for this hour. The report also includes total and average for Unassigned Slot Delay and DAS Slot Delay for the entire UDP or GAAP program.

16:00 Hour Pop-Up Demand - DAS			*An asterisk indicates the flight has not yet departed.		
ACID	Lead Time	DAS Slot Delay			
AMF135	-02:14	180			
<b>Total Delay</b>		180			
<b>Average Delay</b>		180			
Totals for the Program		Unassigned Slot Delay	DAS Slot Delay		
<b>Total Delay</b>		3307	360		
<b>Average Delay</b>		41	180		

**Figure 5: Pop-Up Demand – DAS Report**

## Updated Adaptive Compression Report

The **Adaptive Compression Report** in Figure 6 separates Compressed Flights and Bridged Flights. This report is available for both airport and airspace data sets. The **Adaptive Compression Report** is available once an airport or airspace Performance Report has been opened for a GDP or AFP. The link is available on the left side of the page.

- [Performance](#)
- [Flight Status Page](#)
- [Adaptive Compression](#)
- [Cancels That Flew](#)
- [Compliance](#)
- [CTD Before PGTD](#)
- [Pop-Ups](#)
- [Pop-Ups Delay](#)
- [Time Out Delay](#)
- [Duplicate Flights](#)
- [Unassigned Slots](#)
- [Events](#)
- [Text Version](#)
- [Lookup Flight](#)
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FCABA2 Adaptive Compression

Flight List Generated at 1818z on 09/21/2010

○ Adaptive Compression ON

\* An asterisk indicates the flight has not yet departed.

- U = Unassigned Slot Compression (UBRG)
- A = Adaptive Compression (ABRG)

Compressed Flights							Bridged Flights						
ADL Time	ACID	New CTD	Prev Slot	New Slot	Delay Diff	Cancelled	ACID	Bridge Type	New CTD	Prev Slot	New Slot	Delay Diff	
1633	UNASSIGNED	-	21/2231A	-	-	-	AMT7477*	A	21/2153	21/2231A	21/2203A	-28	
							SWA1954	A	21/2045	21/2203A	21/2137A	-26	
1548	UNASSIGNED	-	21/2237A	-	-	-	SWA8503*	A	21/2141	21/2233A	21/2217A	-16	
	UNASSIGNED	-	21/2235A	-	-	-	UAL1185*	A	21/2036	21/2235A	21/2213A	-22	
	UNASSIGNED	-	21/2233A	-	-	-	SWA1954*	A	21/2111	21/2217A	21/2203A	-14	
	UNASSIGNED	-	21/2030A	-	-	-	UAL1443*	A	21/1948	21/2213A	21/2131A	-42	
	UNASSIGNED	-	21/2027A	-	-	-							
	UNASSIGNED	-	21/2015A	-	-	-							

**Figure 6: Adaptive Compression Report**

Newly added to Adaptive Compression Report, unassigned flights for a UDP and/or a GAAP are now included. For unassigned flights, the ACID will appear as “UNASSIGNED”, and only the Prev Slot column will be populated under the Compressed Flights side. In Figure 6, an additional new column is included called





**Bridge Type** and it is under Bridged Flights. The valid values are U for Unassigned Slot Compression (UBRG) and A for Adaptive Slot Compression (ABRG).

## Pop-Up Delay Report

After selecting a program, the Pop-up Delay Report in Figure 7 can be accessed by selecting the **Pop-Ups Delay** link below the Pop-Ups link on the left side of the page.

- [Performance](#)
- [Flight Status Page](#)
- [Adaptive Compression](#)
- [Cancels That Flew](#)
- [Compliance](#)
- [CTD Before PGTD](#)
- [Pop-Ups](#)
- [Pop-Ups Delay](#)
- [Time Out Delay](#)
- [Duplicate Flights](#)
- [Unassigned Slots](#)
- [Events](#)
- [Text Version](#)
- [Lookup Flight](#)
- [Back to main menu](#)
- [Help](#)

FCABA2 Pop-Up Delay Flight List Generated at 1748z on 09/21/2010

Original Start Time: 14:54z

Hour/Lead Time	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	0	0	2	0	0	1	1	2	0	0
2	0	2	1	1	1	0	1	2	3	0
3	0	4	0	0	2	1	1	2	4	0
4	0	0	0	2	2	1	3	2	0	0
5	0	1	1	1	0	1	1	3	1	0
6	0	0	1	2	1	2	0	1	0	0
7	0	0	0	0	0	1	0	2	3	0
8	0	1	1	7	4	3	2	5	5	2

16:00 Hour / 8 Hr Lead Pop-Up Delays \*An asterisk indicates the flight has not yet departed.

ACID	Slot Type	Unassigned Slot Delay	Z Slot Delay
SKW6430	A	-143	-54
<b>Total Delay</b>		<b>-143</b>	<b>-54</b>
<b>Average Delay</b>		<b>-143</b>	<b>-54</b>

**Figure 7: Pop-Up Delay Report**

Selecting on a non-zero Hour/Lead Time value in the **Pop-Ups Delay Report** will allow a user to examine the unassigned delay for flights in a program (GDP/AFP) at a certain lead time (how far in advance the flight has become known). The new window is displayed under the Pop-Up Delay Report and includes ACID, slot type, unassigned slot delay, and Z slot delay. Z slot delay is the difference between the original airport parking gate arrival time and the arrival slot time given to a controlled flight. It also includes the total and average delay for Unassigned Slot Delay and Z Slot Delay for the specific Hour and lead time hour.