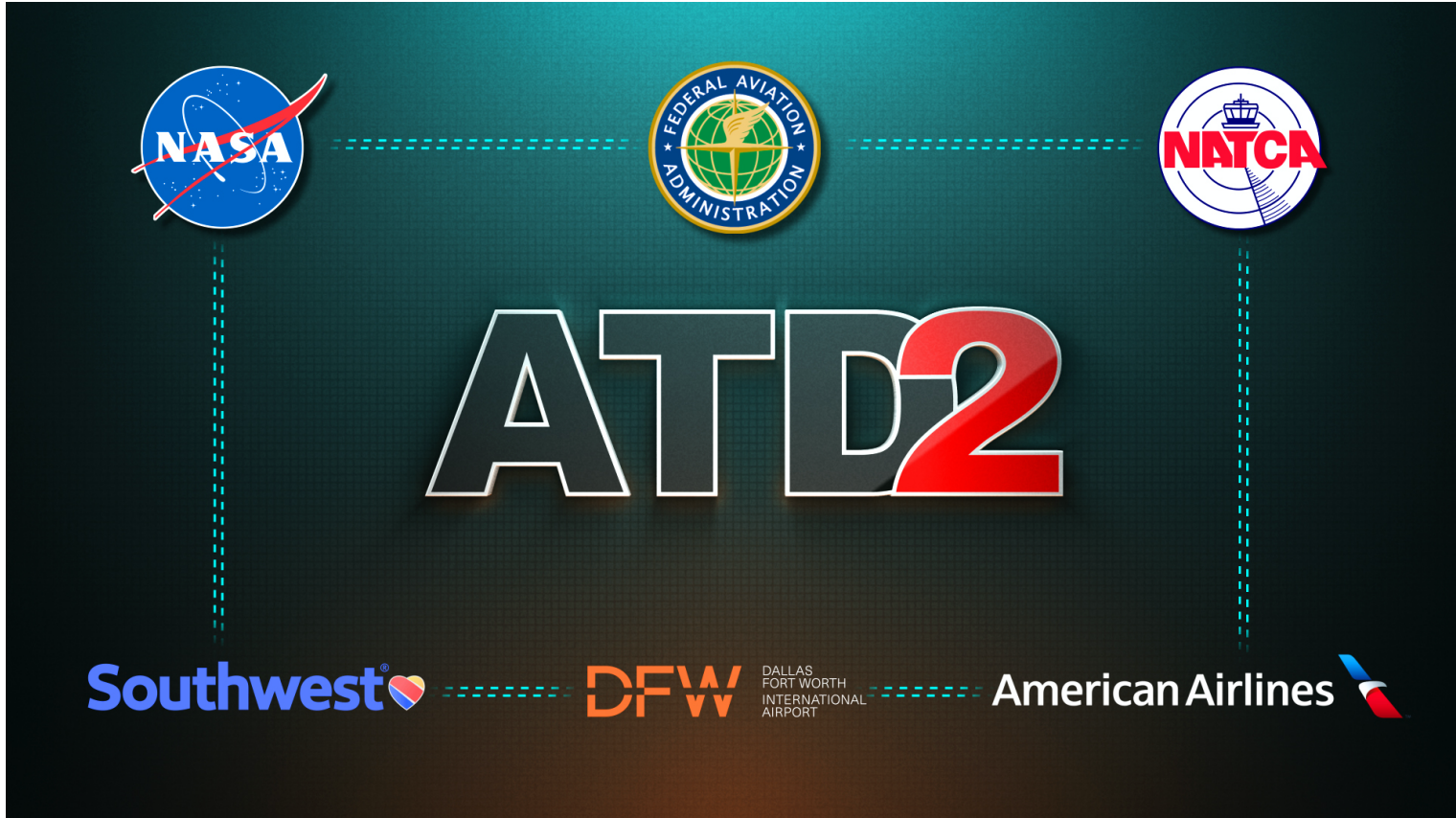


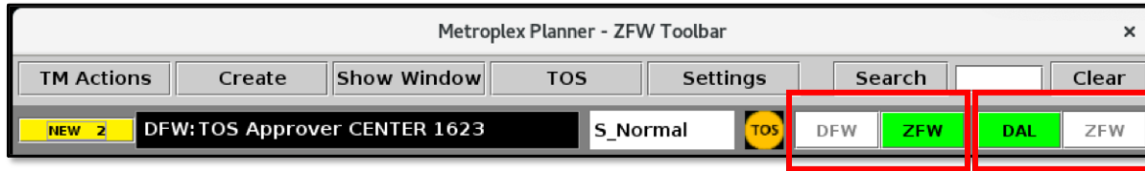
New TOS Approval Mode





- The ATD-2 Metroplex Planner can now support the coordination of TOS Approvals across multiple ATC facilities.

- Toggle buttons on the Toolbar are used to select which ATC facility – **Center** or **Tower** – will approve TOS Submissions.
 - At **ZFW**, Toggle buttons are available on the Toolbar for each airport, DFW and Love Field.



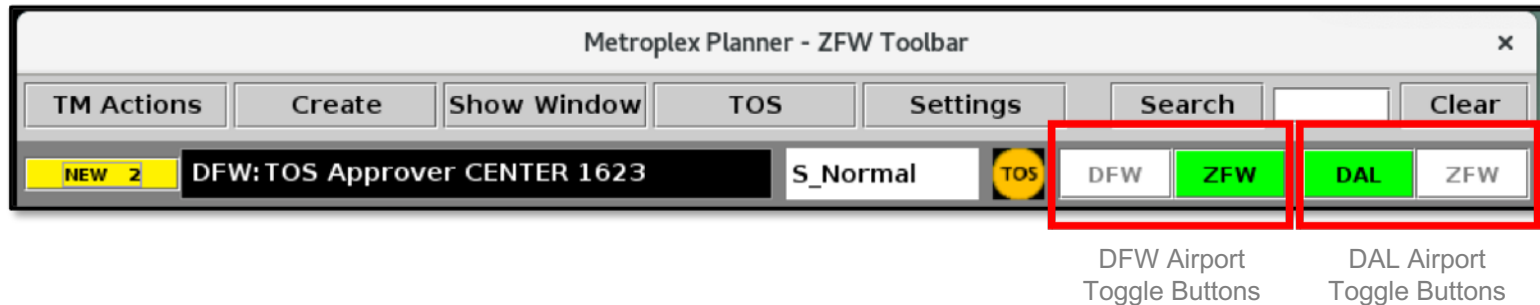
- And, in the **DFW** and **Love Field Towers**, Toggle buttons are available for that airport.



- Both facilities – the **Center** and **the Towers** – can select either mode. The selected Approval Mode for each airport is reflected system-wide, at all facilities.
- Each morning, the system defaults to **Tower** Approval Mode at both airports.



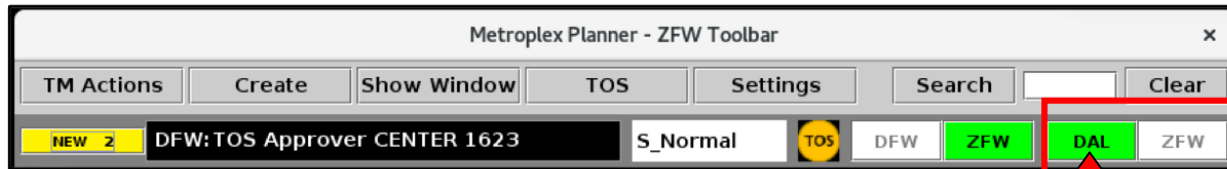
- At each airport, only one facility – **Center** or the **Tower** – can be the active TOS Approver at a time.
- The **green** Toggle button indicates which facility is currently approving TOS Submissions.
 - In this example, if we “**follow the green**” for each set of airport buttons, we see:
 - **Center** is approving TOS Submissions made at **DFW**, and
 - **Love Field Tower** is approving TOS Submissions made at **DAL**.



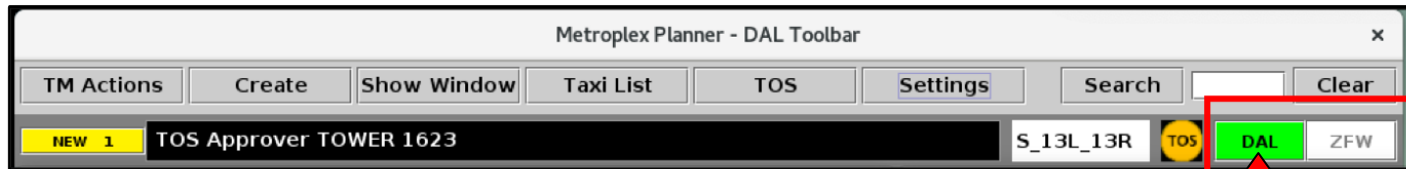


Let's look at two examples ...

- First, a TOS Submission at Love Field.
- Remember, we “**follow the green**” to know which facility is approving TOS Submissions. In this example, the **DAL Tower** is approving TOS Submissions made at **Love Field**.



ZFW Center Toolbar



Love Field Tower Toolbar

Example 1



- When a Flight Operator makes a TOS Submission at **Love Field**, the submission is indicated on the Timeline and in the TOS Departure Table at both the **Center** and **DAL Tower** facilities ...

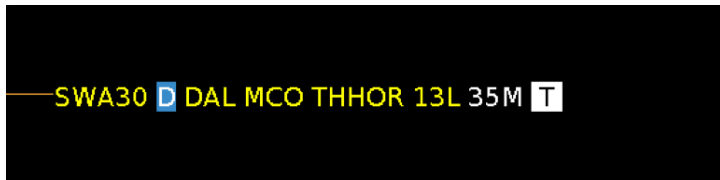
Metroplex Planner - ZFW TOS Operations at 21:09 Z

ix	Top CDR	Top Rwy	Top ETOT	Top OFF Delay	Top IN Delay	Eligibility State	Coord State	Flight Status
	DALMCO1S	13L	21:26	0	+9	Candidate	FO Submitted	Scheduled_Out

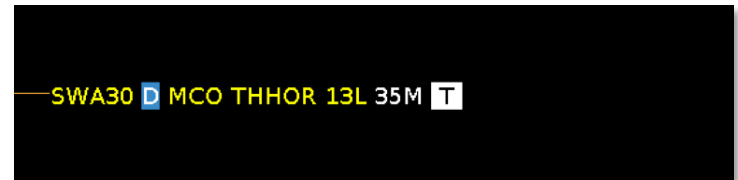
Metroplex Planner - DAL TOS Operations at 21:09 Z

ID Coord State = FO Submitted

ix	Top CDR	Top Rwy	Top ETOT	Top OFF Delay	Top IN Delay	Eligibility State	Coord State	Flight Status
	DALMCO1S	13L	21:26	0	+9	Candidate	FO Submitted	Scheduled_Out

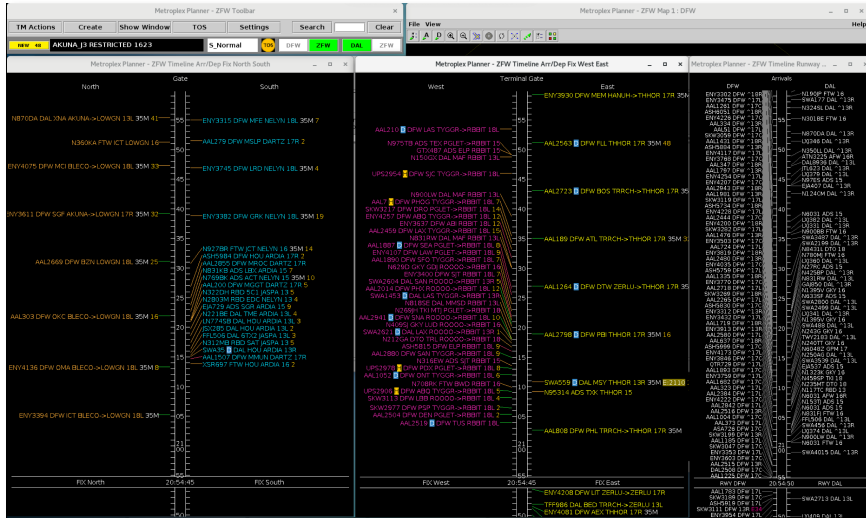


ZFW Center

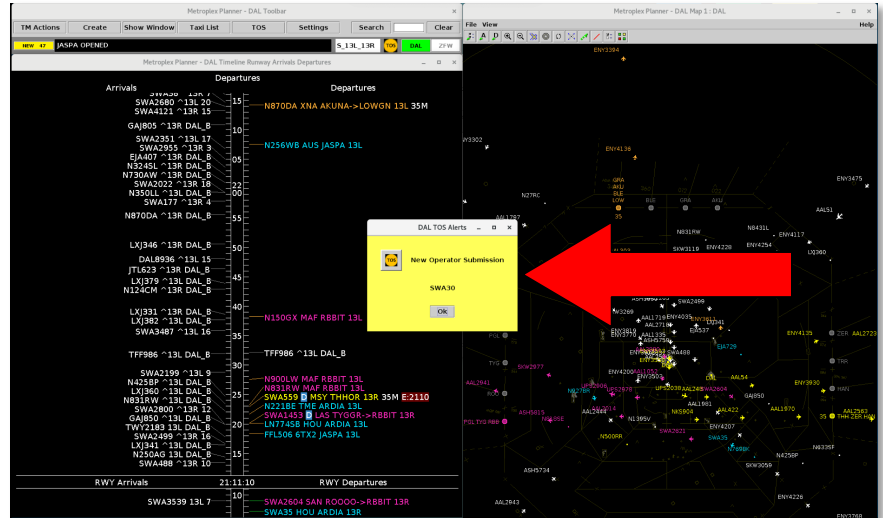


DAL Tower

- ... but, the pop-up Submission alert (the yellow box) is only displayed at the Approving facility, in this case, Love Field Tower.



ZFW Center



DAL Tower

Example 1



- Likewise, the option to “**Approve**” the TOS Submission is available only at the **Approving facility**, again, in this case, **Love Field Tower**.

ZFW TOS Operations at 21:10 Z

Top ETOT	Top OFF Delay	Top IN Delay	Eligibility State	Coord State	Flight Status
21:26	0	0	Candidate	FO Submitted	Scheduled_Out 35M

ZFW Center

DAL TOS Operations at 20:59 Z

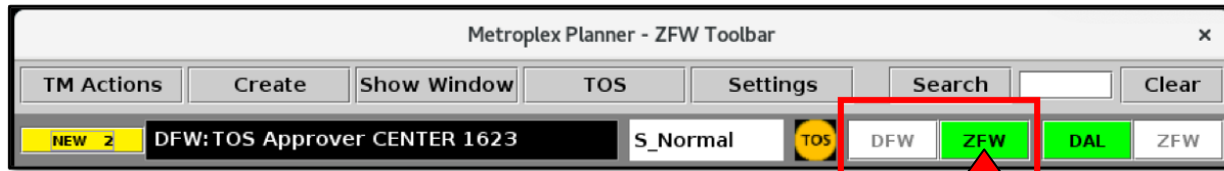
Top ETOT	Top OFF Delay	Top IN Delay	Eligibility State	Coord State	Flight Status	TMI Info
21:26	0	0	Candidate	FO Submitted	Scheduled_Out 35M	

DAL Tower

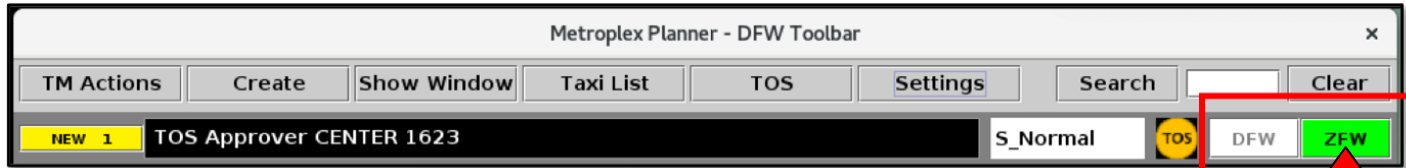
Example 2



- In the second example, a Flight Operator makes a TOS Submission at **DFW**.
- Again, we “**follow the green**” to know which facility is approving TOS Submissions. In this example, **Center** is approving TOS Submissions made at **DFW**.



ZFW Center Toolbar



DFW Tower Toolbar

- When a Flight Operator makes a TOS Submission at **DFW**, the submission is indicated on the Timeline and in the TOS Departure Table at both the **Center** and **DFW Tower** facilities ...

Metroplex Planner - ZFW TOS Operations at 22:47 Z

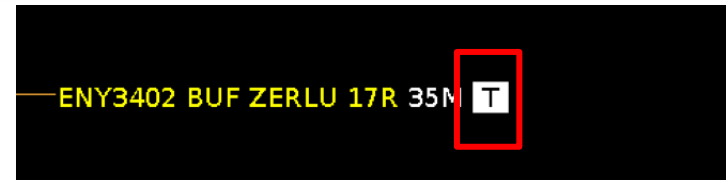
Top IN Delay	ETOT ▲	Time to Expiration	Top ETOT	Eligibility State	Coord State	Flight Status	TMI In
8	03/04:02	8	23:41	Candidate	FO Submitted	Scheduled_Out	35M FixC

Metroplex Planner - DFW TOS Operations at 22:44 Z

Top OFF Delay	Top IN Delay	Time to Expiration	Top ETOT	Eligibility State	Coord State	Flight Status	
17	0	+48	11	23:41	Candidate	FO Submitted	Scheduled_Out

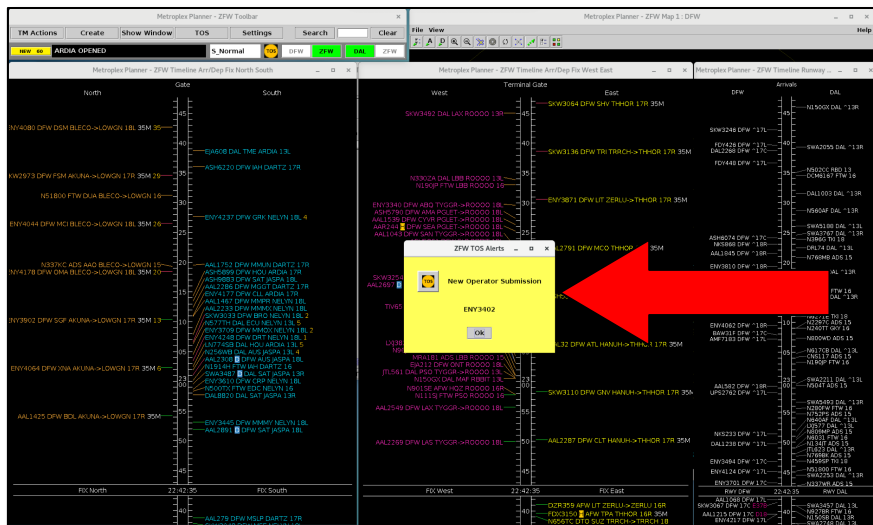


ZFW Center

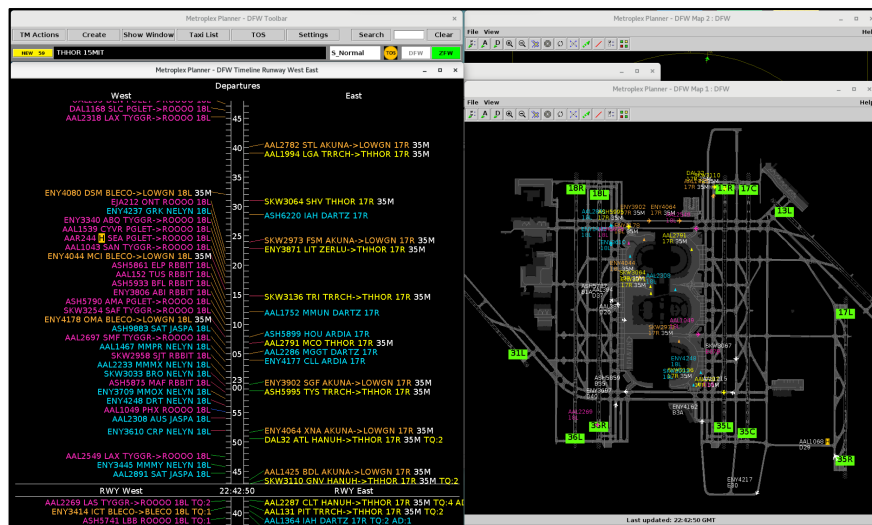


DFW Tower

- ... but, the pop-up Submission alert (the yellow box) is displayed only at the Approving facility, in this case, at Center.



ZFW Center



DFW Tower

Example 2



- Likewise, the option to “**Approve**” the TOS Submission is available only at the **Approving facility**, again, in this case, at **Center**.

ENY3402 DFW BUF ZERLU 17R 35M T

- ENY3402
- Approve** → DFWBUF1S Potential ETOT=23:42 DelaySavings=
- TOS Flight Menu
- Scratch Pad
- Exclude from Fix Closure

ENY3402 BUF ZERLU 17R 35M T

- ENY3402
- TOS Flight Menu
- Scratch Pad
- Exclude from Fix Closure
- Exclude from MIT
- Change Runway

Planner - ZFW TOS Operations at 22:47 Z

Search

ate != Expired

T	Time to Expiration	Top ETOT	Eligibility State	Coord State	Flight Status	TMI Info	Scratch Pad
2	8	23:41	Candidate	FO Submitted	Scheduled_Out	35M FixClsd	

- ENY3402
- Approve** → DFWBUF1S Candidate ETOT=23:41 DelaySavings=-26
- TOS Flight Menu
- Scratch Pad
- Exclude from Fix Closure
- Exclude from MIT

Planner - DFW TOS Operations at 22:44 Z

Search

36R,DFW:31R,DFW:31L AND Coord State = FO Submitted AND Eligibility

T	Time to Expiration	Top ETOT	Eligibility State	Coord State	Flight Status	TMI Info	Scratch Pad
11		23:41	Candidate	FO Submitted	Scheduled_Out		

- ENY3402
- TOS Flight Menu
- Scratch Pad
- Exclude from Fix Closure
- Exclude from MIT
- Change Runway

ZFW Center

DFW Tower

TOS Submission/Approval Time Limit in Center Approval Mode



- When in **Tower** Approval mode:
 - A TOS “Candidate” route can be submitted and approved until departure.
- When in **Center** Approval mode:
 - The option to submit or approve a TOS “Candidate” route “expires” at a set time, 35 minutes prior to p-time.

TOS Submission/Approval Time Limit in Center Approval Mode



- In the **“Time to Expiration”** column, a timer counts down (in minutes) to the expiration time. When the timer reaches 0 min (at 35 min prior to p-time), a **“Candidate”** route expires and TOS Eligibility State changes to **“Expired”**.

Flight Operator - AAL Toolbar

TM Actions Create Show Window Taxi List TOS Settings Search Clear

NEW 1... TOS Approver CENTER 1623 S_Normal TOS DFW ZFW

Flight Operator - AAL TOS Operations at 01:40 Z

TOS Departure - Eligibility State = Candidate AND Eligibility State = Expired

Flight ID	CPL	Rwy	Dest	Route of Flight	Dep Fix	OFF Delay	IN Delay	EOBT	ETOT	POBT	Time to Expiration	Eligibility State	Coord State	Top CDR	Top Rwy	Top ETOT
AAL2222		E17R	DCA	KDFW.TR...	TRRCH	+155	+134	03/02:29	03/05:16	03/02:29	14	Candidate	Not Submitted	DFWDCA1S	17R	02:41
AAL1694		E18L	DEN	KDFW.LO...	LOWGN	+54	+34	03/02:20	03/03:27	03/02:20	5	Candidate	Not Submitted			
AAL1883		E17R	MSY	KDFW.MR...	THHOR	+147	+122	03/02:20	03/04:59	03/02:20	5	Candidate	Not Submitted			
AAL2266		E17R	MIA	KDFW.MR...	THHOR	+158	+127	03/02:20	03/05:10	03/02:20	5	Candidate	Not Submitted			

TOS Departure - Eligibility State = Expired

Flight ID	CPL	Rwy	Dest	Route of Flight	Dep Fix	OFF Delay	IN Delay	EOBT	ETOT	POBT	Time to Expiration	Eligibility State	Coord State	Top CDR	Top Rwy	Top ETOT
AAL1615	Y	E17R	BWI	KDFW.T...	TRRCH	+9	-5	03/01:54	03/02:17	03/02:00	0	Expired	Not Submitted			
ENY3491		E17R	GSP	KDFW.F...	HANUH	+4	-34	03/01:55	03/02:11	03/02:00	0	Expired	Not Submitted			
AAL1446	Y	E17R	TUL	KDFW.G...	GRABE	+17		03/02:30	03/02:30	03/02:00	0	Expired	Not Submitted			
ENY3409		E17R	GRR	KDFW.A...	AKUNA	+22	+5	03/01:58	03/02:35	03/02:00	0	Expired	Not Submitted			
ASH5780		E17R	PNS	KDFW.M...	THHOR	+31	+25	03/01:57	03/02:40	03/02:00	0	Expired	Not Submitted			

At 0 minutes in the **“Time to Expiration”** column, TOS Eligibility State changes to **“Expired”**.

TOS Submission/Approval Time Limit in Center Approval Mode



- Once a “Candidate” route has expired, it cannot be submitted by the Flight Operator or Approved by either facility.

Flight Operator - AAL Toolbar

Flight Operator - AAL TOS Operations at 02:17 Z

TM Actions Create Show Window Taxi List TOS Settings Search Clear

NEW 1... TOS Approver CENTER 1623 S_Normal TOS DFW ZFW

TOS Departure - Eligibility State = Candidate AND Eligibility State != Expired

Flight ID	CPC	Rwy	Dest	Route of Flight	Dep Fix	OFF Delay	IN Delay	EOBT	ETOT	POBT	Time to Expiration	Eligibility State	Coord State	Top CDR	Top Rwy	Top ETOT
ENY3713		E17R	MLU	KDFW.MR...	THHOR	+133	+113	03/02:55	03/05:21	03/02:55	3	Candidate	Not Submitted	DFWMLU1S	17R	03:11

TOS Departure - Eligibility State = Expired

Flight ID	CPC	Rwy	Dest	Route of Flight	Dep Fix	OFF Delay	IN Delay	EOBT	ETOT	POBT	Time to Expiration	Eligibility State	Coord State	T
ENY3409		17R	GRR	KDFW.A...	AKUNA	+12	-3	03/01:58	03/02:29	03/02:00	0	Expired	Not Submitted	
ENY3325		17R	SAV	KDFW.F...	HANUH	+23	-4	03/01:54	03/02:40	03/02:00	0	Expired	Not Submitted	
ENY3886		17R	CVG	KDFW.Z...	ZERLU	+39	+30	03/01:57	03/02:57	03/02:00	0	Expired	Not Submitted	
ENY3606		17R	SGF	KDFW.A...	AKUNA	+1	-23	03/01:54	03/02:18	03/02:00	0	Expired	Not Submitted	
AAL403		E17R	PIT	KDFW.A...	AKUNA	+27	+49	03/02:22	03/02:52	03/02:00	0	Expired	Not Submitted	

Once Expired, “Submit” is no longer available on the right-click menu.

No TOS Submission/Approval Time Limit in Tower Approval Mode



- In **Tower** Approval Mode, TOS routes do not expire. Instead of a countdown timer, “**N/A**” is displayed in the “**Time to Expiration**” column.

Tower Approval Mode

Flight Operator - AAL Toolbar

Flight Operator - AAL TOS Operations at 02:24 Z

TOS Approver TOWER 0223

S_Normal TOS **DFW** ZFW

TOS Departure - Eligibility State = Candidate AND Eligibility State = Expired

Flight ID	CPL	Rwy	Dest	Route of Flight	Dep Fix	OFF Delay	IN Delay	EGBT	ETOT	POBT	Time to Expiration	Eligibility State	Co
ENY3316		E17R	MEM	KDFW.FO...	HANUH	+95	+70	03/02:31	03/04:19	03/02:35	N/A	candidate	Not S
ENY3713		E17R	MLU	KDFW.MR...	THHOR	+113	+85	03/02:47	03/04:54	03/02:55	N/A	candidate	Not S
AAL1975	Y	E17R	PBI	KDFW.MR...	THHOR	+92			03/04:02	03/02:08	N/A	candidate	Not S
ENY4176		E17R	GPT	KDFW.MR...	THHOR	+109	+83	03/02:45	03/04:48	03/02:50	N/A	candidate	Not S
ENY3953		E17R	MGM	KDFW.FO...	HANUH	+99	+76	03/02:44	03/04:36	03/02:50	N/A	candidate	Not S
AAL2222		E17R	DCA	KDFW.TR...	TRRCH	+92	+83	03/02:23	03/04:08	03/02:29	N/A	candidate	Not S
AAL1694		E18L	DEN	KDFW.LO...	LOWGN	+31	+2	03/02:17	03/03:01	03/02:20	N/A	candidate	Not S

If TOS Approval Mode changes from ZFW to a Tower, “**Expired**” TOS routes become “**Candidate**” routes again, with no time limit.

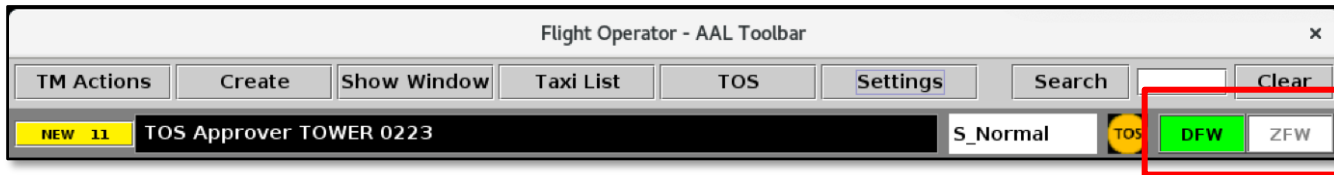


A few quick notes ...

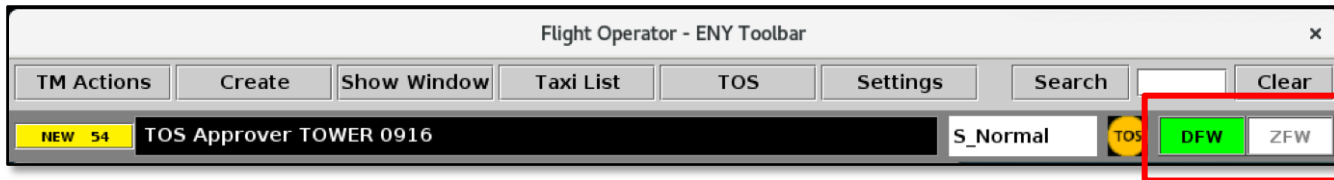
TOS Approver Mode



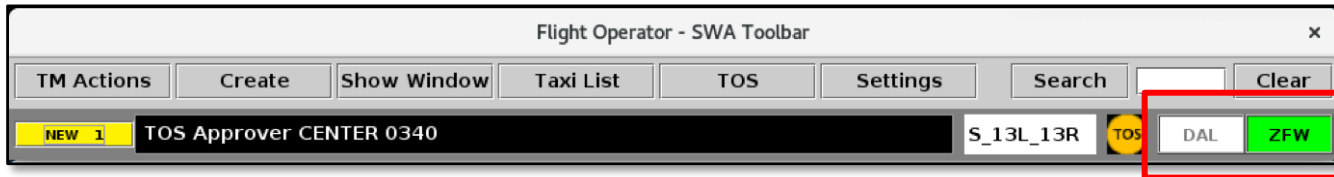
- Flight Operators (and D10) have a TOS Approver **Status Indicator** on their Toolbar for awareness. These are for information only and are not selectable. Only the **Center** and the **Towers** have selectable buttons and can actually change the TOS Approval Mode.



← **AAL Toolbar:**
Status Indicator

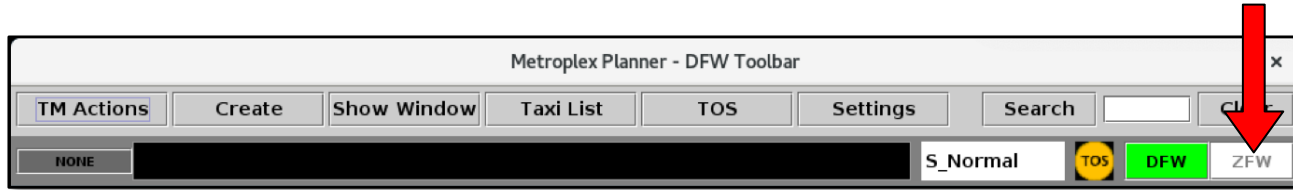


← **ENY Toolbar:**
Status Indicator

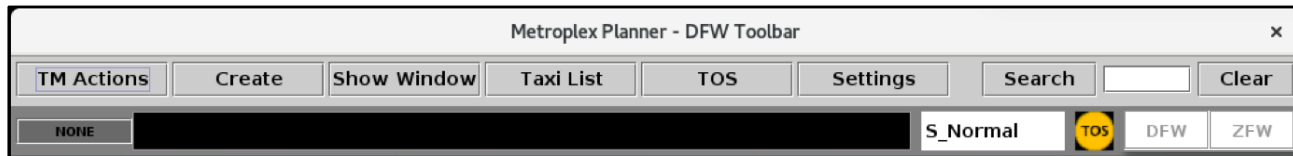


← **SWA Toolbar:**
Status Indicator

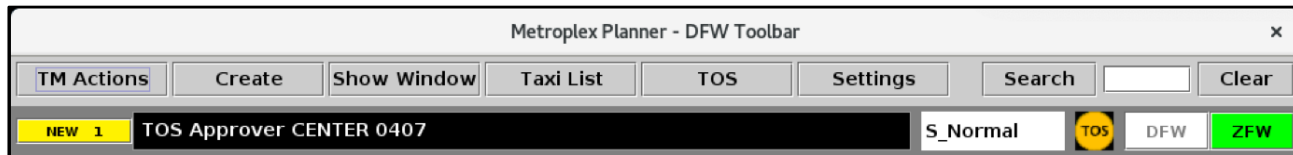
- After selecting a Toggle button (at **Center** or in the **Towers**), the Toggle buttons may both turn gray for a few seconds while the system is responding. Do not make any additional Toggle inputs.



To change the mode, the “ZFW” button is selected.

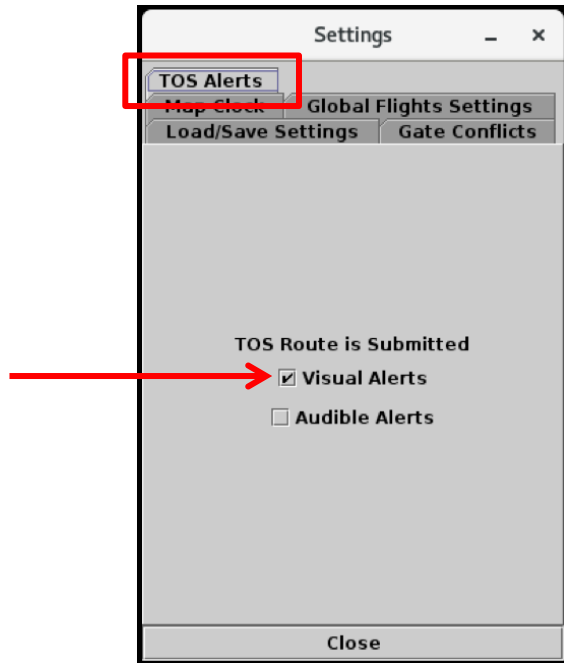


Buttons are *momentarily* grayed-out.

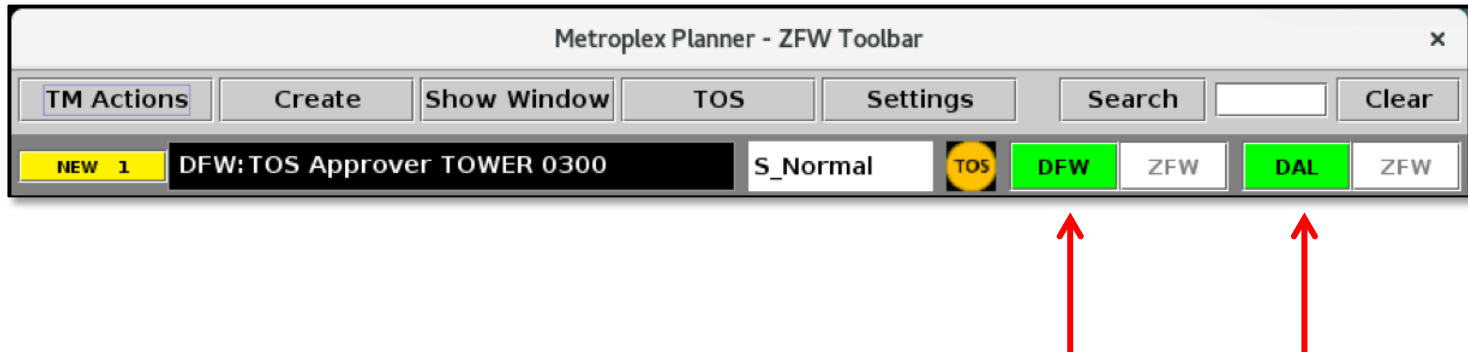


Selected button turns green.

- At **Center** and **in the Towers**, ensure that the Visual Alerts box is checked on the “TOS Alerts” tab to display the TOS Submission pop-up alerts.



- Each morning, or any time the system restarts, the default TOS Approval Mode for both airports is the **Tower**.



- If TOS Submissions are changed from Active to Inactive, both buttons (along with the TOS icon) are grayed-out.

