



Federal Aviation Administration

Memorandum

Date: DEC 21 2017

To: Jeffrey U. Vincent, Director, Air Traffic Operations, Eastern Service Area
AJT-EN/ES [REDACTED]

From: Michael D. Wagner, Group Manager
Eastern Service Center, Quality Control Group

Subject: Event Review, Aircraft accident at Miami Executive (TMB ATCT) immediately after Tower closing

An On Site review of closing procedures was completed at TMB following a Services Rendered Telcon in reference to TMB-M-2017/12/01-0002. The MOR stated that on the evening of Thursday November 30th at approximately 2301 (0401z on 12/1), a C172 crashed short of Runway 09L due to runway lights being turned off. N537HF/C172 reported eight miles east of the airport at 0352z and was cleared to land on Runway 9L. A pre closing statement was read at 0353z and this was acknowledged by N537HF. N537HF was on a 1-mile final when the Local Control controller finished issuing a blanket broadcast stating that the tower was closed. N537HF landed on a grass area south of runway 9L and struck a taxiway sign east of the A1 intersection. No injuries were reported. Airport operations were advised of the accident by the pilot after midnight.

QCG Follow up

Following the Services Rendered Telcon (SRT) held on December 4, 2017, two QCG Specialists were dispatched to TMB to review DALR with emphasis on Tower closing procedures, and follow up on several questions and concerns surrounding the event. The team arrived the morning of December 6, 2017, and spent that afternoon and ten hours on December 7 reviewing procedures, monitoring the operation, and other related follow-up activities. The team reviewed over sixty hours of audio, covering a thirty-six-day period, in an effort to report on the quality of the closing operation from November 1 thru December 6, 2017 (Attachment #2). Forty-four days' worth of FAA form 7230-10 were reviewed to determine staffing levels. The QCG team accounted for two hours in the tower observing operations. The LC controller was interviewed with NATCA representation, in order to gain a better understanding of the event.

TMB procedures for closing the Tower

TMB ATCT closes each night at 2300, unless otherwise coordinated (the tower did remain open on November 19 until 2400, providing services for a NASCAR race). TMB ATCT has a thorough checklist (Attachment #1) which covers all required items. A Pre-Closing Broadcast statement is required in the checklist, and was found to have been omitted sixteen of the thirty-five times reviewed. Required coordination with Miami Approach was done twenty-four of the thirty-five nights reviewed. The QCG team made a suggestion to specifically include traffic in coordination with MIA, because review of TMB coordination showed most of the time all that was passed was “closing at the top of the hour”. While reviewing audio, TMB referred to traffic only twice in the thirty-five days reviewed, and aircraft were in communication with the tower at least five other times. The closing statement is inclusive of all needed information and was done at closing each of the thirty-five times reviewed. Switching the ATIS Broadcast to ASOS was done all but two times. This procedure enables the ASOS equipment to continuously update the weather being broadcast, while including pertinent information recorded at the time of closing. A copy of the closing data is labeled as attachment #2.

Findings from the event

The following attachments are included to give a better understanding of the event;

1. Attachment #3 – Initial Memo to the Paradise District Manager
2. Attachment #4 – Shift and Rotation Expectations. This was distributed in July 2016
3. Attachment #5 – Facility questions brought up by QCG and DDO.
4. Attachment #6 – Airfield lighting Time Log.
5. Attachment #7 – Facility memo explaining the Airfield lighting log.

The Air Traffic Manager (ATM) and Local Controller (LC) were questioned as to the location of the two controllers which were working 1500-2300. Both the ATM and LC stated that both controllers were in the tower at closing. Which was supported by the statement from LC that the Ground Controller (GC)/Controller-in-charge (CIC) requested permission of the LC to switch to Pilot Control Lighting. This request was approved by the LC, and the PCL was activated by GC. When interviewing the LC (with NATCA present), he stated that both he and the GC/CIC left the tower at the same time (included on attachment #5). Attachment 6 (Airfield Lighting Time Log) was requested and shows that the runway lights for RWY9L turned off at 23061cl. Attachment #7 further explains the Airfield Lighting Time Log.

A review of that shifts 7210-10 documented that both controllers signed off at 2259/0359z. The DALR was reviewed for verification, and GC did effect closing coordination with Miami Approach at 0320z (Which was found to be too early, and not in accordance with closing procedures). GC also gave instructions to a taxiing aircraft at 0339z. At 0346z, an aircraft had landed and LC told the pilot that they could “stay with me”.

The daily logs indicate that GC combines to LC South between the hours of 2105-2120 (22 of the 44 days reviewed). That will then leave one ATCS working all operational positions, and one ATCS working as CIC. This typically results in two controllers on break until 2200. The ATM expectation is to have two ATCS's in the tower at all times. On the night of the event, there were two controllers on position after 2300.

On December 4th, Airport Operations took the initiative to issue the following two NOTAMs closing RWY13/31 and RWY09L/27R;

1. 12/005 - RWY 13/31 CLSD DLY 0400-1200. 05 DEC 04:00 2017 UNTIL 05 FEB 12:00 2018. CREATED:04 DEC 22:14 2017
2. 12/004 - RWY 09L/27R CLSD DLY 0400-1200. 05 DEC 04:00 2017 UNTIL 05 FEB 12:00 2018. CREATED:04 DEC 22:13 2017

The Air Traffic Manager remembers when these runways would be NOTAMed closed after the tower closes, but Airport Operations had stopped this practice without giving reason. Since the PCL is only on RWY9R/27L, those runways would not be used at night unless a problem came up with the active runway. All taxiway lights remain on throughout the night because the FBOs are located all around the airport property, and therefore the taxiway lights must be kept on throughout the movement areas.

Normal Facility hours are 0700-2300

Facility Staffing

Controllers

Two controllers open with shifts of 0645-1445
 Three controllers then flex in between 0730-0805.
 One controller comes in on a 1300-2100
 Two controllers then work a 1400-2200
 Two controllers flex in between 1500-1505.

Front Line Manager's (2) RDOs are Fri/Sat and Sun/Mon.

Sun one FLM working with a flex of 1030-1100.
 Mon one FLM working with a flex of 1030-1100.
 Tue one FLM has a flex of 0730-0800, and the second FLM works a 1300-2100.
 Wed one FLM has a flex of 0730-0800, and the second FLM works a 1300-2100.
 Thu one FLM has a flex of 0730-0800, and the second FLM works a 1100-1900.
 Fri one FLM working with a flex of 1030-1100.
 Sat one FLM has a flex of 0730-0800.

Facility Actions and Follow Up

The TMB ATM has begun briefing each closing CIC of the expectations for working the closing shifts. This will be re-briefed starting December 7, 2017 so that the NATCA Rep can attend each briefing.

Below are the changes that will take place;

1. Effective January 7, 2018 one of the two closing shifts will be changed from 1500-2300 to 1515-2315. This shift can only be worked by CPC's who are CIC qualified. There will not be an option for FLEX.
2. The two controllers working 1400-2200 will be on position until after 2130, and the 1500-2300 and 1515-2315 will be on position until at least 2245.
3. It will also be stressed that unless there are unforeseen staffing issues, two controllers will be in the tower at all times.
4. The Pre-Closing Statement will be eliminated.
5. The coordination with MIA approach will be moved to after the closing statement. They will now include Traffic and pertinent information in the coordination.
6. The Closing Statement will include Airport Advisory frequency 118.9 (which is LC South during operating hours) along with runway lighting information.

External Compliance Validation (ECV) Findings

The last TMB ECV was conducted January 19-26, 2016. A total of 87 checklist items and the top 5 items from 2015 were assessed.

- The ECV did result in five Non-Compliant Low Risk items. Those Non-Compliant Low Risk items which did not pertain specifically to this issue were: GENOT Handling, Quality Control Programs, Refresher Training, and System Service Reviews.
- The one Non-Compliant Low Risk item which is a factor in this issue is Item 177 Visual Scanning. Controllers visually scan runways on a continuous basis. Monitoring in the Tower revealed Local Control South and Local Control North positions are busy and complex. Runway scanning varied by controller, however, it was noticed that Tower Radar Monitors are often depended on too much. Runways were not scanned regularly by all controllers. Scanning Runways was made an emphasis item in the 2016 QC OSAs, and the findings led to the closing of this item.

cc: Jeffrey U. Vincent, Director, Air Traffic Operations, Eastern Service Area, AJT-EN/ES
 Calvin Rohan, Deputy Director, Air Traffic Operations, Eastern Service Area, South, AJT-ES
 Russell Janney, Senior Advisor, Air Traffic Operations, Eastern Service Area, South, AJT-ES
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 Joey Kennedy, Team Manager, QCG OPS Evaluation (South), AJV-E14
 Joe Kann, Team Manager, QCG OPS Evaluation (North), AJV-E13



Federal Aviation Administration

Memorandum

Date: December 8, 2017

To: Jan Deak, Manager (A), Paradise District

From: Ernie Young, Air Traffic Manager, TMB ATCT

Subject: N537HF – Follow Up

I have attached the airfield lighting logs from 11/30/2017 which indicate that the lights were transitioned to pilot control lighting at 23:06:50L (04:06:50Z). N537HF disappeared from the FALCON at 04:01:38Z, which would indicate that the lights were on and not turned off as the pilot originally reported.

The times were verified by:

- a. Reviewing logs from before and after 11/30/2017. All logs indicated that pilot control lighting was activated after 2300L (0400Z) except on 11/24/2017 when the pilot control lights were reported OTS by ATC.
- b. Airport Manager stated that maintenance to the vault done bi-weekly and that the computer is checked for any alarms.

How to read the log:

- a. Begin at the bottom of page 3 and you will see that the BEACON and the WINDCONE were activated at 17:35:23.
- b. Continue up the page where you will see that 9L/27R EDGE and 13/31 EDGE are showing Step: 0 at 23:06:50L.

Please do not hesitate to call me should you have any other questions.



Federal Aviation Administration

Memorandum

Date: July 25, 2016

To: All Tower Personnel

From: Ernie Young, Air Traffic Manager, TMB ATCT

Subject: Shift and Rotation Expectations

There is a current investigation being conducted in the facility and even though it is not yet completed. There are some findings that I need to clarify so that we are clear on what the shift expectations are:

1. When we schedule three 7s, I expect that LC, GC and FD/CD will be open until you begin a break rotation when the first 8 shift arrives.
2. I expect that if you are signed on the Dash 10 log for a particular position, that the DALR recording confirms that you are on the position. It was discovered that on or around 2100 LCL time, in most of the cases; all positions were recorded at the LCS position. Some of the Dash 10s showed people signed on position but no transmissions were recorded on the position during that time.
3. When you are the designated opening CIC, you are expected to open the log and be in charge until you have been relieved from the CIC duty. The same goes for the designated closing CIC whereas you are responsible for closing the log and signing the log.
4. Reference all of the shifts. I expect that the Dash 10 should reflect the employee in on position or assigned work until at least 30 minutes prior to the end of their assigned shift. Dash 10s reflected the employee signed off an average of 1 hour or more before their shift ended. One as much as 90 minutes.
5. When you are being relieved or you are combining a position. A recorded position relief briefing must be conducted unless the IVSR is OTS.

Please see your Supervisor or myself should you have any questions.

- Are the FLM's and CIC's engaged and making on-the-spot corrections? Yes. QCG indirectly monitored two hours of busy traffic. Numerous aircraft in the pattern on both runways 9R and 9L. The FLM was between the two Local Controllers working as a Cab Coordinator. The FLM was vital in his role.
- Are there any procedures or directives that could be improved upon or revised, in the name of safety? Refresh Facility on ATM's Expectations of shift coverage and rotations (Memorandum dated July 25, 2016). This has been verbally briefed from to all CIC rated closing controllers and will be rebriefed with the NATCA rep being present. The NATCA rep will return to the facility on 12/14.
- What do the OSA's show and how does the documentation look like? The OSA's all support a good overall operation.
- Are personnel where they're supposed to be when signed in/on? No. It was found in the Dash10's that there is often only 1 ATCS in the tower cab during closing shifts.
- Evaluate the System Service Review (SSR) for any similar events. One SSR dated Jan 25, 2016, positions were combined and resources were not correctly used as the Local Control position should have been split off but was not, when other ATCS's were available for Re call.
- Are SSR's robust? Yes.
- Any "line of sight" issues? Yes, to Runway 9R, but not for RWY 9L.
- If so, do you think any of these have contributed to the event? No, event took place on RWY9L.
- Positive Control exhibited? Trends? Yes. Controllers use memory aides, coordination procedures per 7110.65, and appear to be visually looking out the windows.
- Distractions in the operation? Nothing noted.
- Management Oversight, and explain how this data was verified. When the Management is on site, the operation runs per Expectations. Issues we found are when Management is off duty. (Combining all positions to one and not following the closing checklist consistently).

- Are the FLM'/CIC's maintaining situational awareness? When they are in the Tower Cab, they do maintain situational awareness. Did not observe a CIC in charge.
- How much time is an FLM on the floor? ATM estimated FLM's average 4 hours in the Tower cab. He feels this time has decreased since losing his Staff Specialist.
- Review FLM schedules to ensure maximum operational coverage over a 7-day period. Two FLM's, current days off are Fri/Sat and Sun/Mon. They do not overlap a day, but it leaves 1 FLM on duty over weekends. (08:00-16:00 Sat and 10:30-1830 Sun). Days they both work they have a 3 hour overlap. The ATM has expressed a desire to change the evening shift for the FLM to 2pm – 10pm.
- Operational awareness? Yes
- Are they cutting corners? No
- Are they procedurally compliant? Yes
- Automation / Data block settings. The ATCS's do not tag VFR aircraft in the pattern, but they do keep ½ strips in the Local Controllers strip bay. (Call sign and Type). The Strips are thrown away when aircraft is completed pattern work.
- Do they consistently update data blocks? Did not observe any changing of data blocks
- Is the automation being used at its fullest capabilities? Tagging up VFRs that could be an issue? Tagging up their VFR's and pattern workers would ensure better service, but also could be work intensive and cause overlapping data tags in the pattern. QCG observed a few times the plane they were looking for had overshot Runway 9R to runway 9L. A Data Block would ensure a better service in situations like this, but also increases workload.
- Safety Alerts, Traffic Advisories, Conflict alert, Low altitude alert, etc. and issuing traffic (timely traffic)? Yes, ATCS's did a good job.

- Training effective? Training was not observed. The ATM stated that developmentals are training on average 2-3 hours a shift.
- Are mitigations being adhered to for CAPS? They have no CAP's.
- What plans does the facility have for review/changes of the CAP after having another event?
N/A
- Review past ICV/ ECV's? Past ECV's indicate no systemic issues, in which we concur.
- Verify actions/mitigations are in place as indicated. Currently working on an SSR from the event on 11/30/17. Awaiting results of the launch to amend the SSR.
- Verify they actually took action on all non-compliance entries. Yes
- Were the actions effective? Yes
- Any other areas of concern not covered above? The overall time the FLM's spend in the operation. The FLM is valuable in this operational quarters at this facility. According to the ATM, their time in the operations is decreasing due no staff specialist. Their estimated average Time On Position is 4 to 4 ½ hours in the Operations.
- What time did you walk out of the tower? After Pilot Control Lighting Activated, Unknown Time.
- Where were all the employees? The other Controller and myself in Cab left at the same time.
- Did you notice the lights go out? No
- Did you hear the aircraft crash? No

- Do you forget the aircraft on final? The SOP was followed, had a strip written out and cantered to the Left, the Runway was scanned. Visually checked final and observed no traffic, Assumed traffic landed and taxied to parking, and the CIC switched the lights over,
- Is it normal practice to leave with traffic clear to land and/or on final. No

Level	Description Reported By	Affects [Parameters]	Reported At
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 5 Click Status: Radio Input 5 Click Low	[Dec/01/17] 00:21:06
EVENT	State changed Vault control - VAULT	Radio Input 5 Click State: OFF	[Dec/01/17] 00:21:06
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 5 Click Status: Radio Input 5 Click High	[Dec/01/17] 00:02:55
EVENT	State changed Vault control - VAULT	Radio Input 5 Click State: On	[Dec/01/17] 00:02:55
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 3 Click Status: Radio Input 3 Click Low	[Dec/01/17] 00:02:55
EVENT	State changed Vault control - VAULT	Radio Input 3 Click State: OFF	[Dec/01/17] 00:02:55
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 7 Click Status: Radio Input 7 Click Low	[Dec/01/17] 00:02:54
EVENT	State changed Vault control - VAULT	Radio Input 7 Click State: OFF	[Dec/01/17] 00:02:54
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 3 Click Status: Radio Input 3 Click High	[Dec/01/17] 00:02:54
EVENT	State changed Vault control - VAULT	Radio Input 3 Click State: On	[Dec/01/17] 00:02:54
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 7 Click Status: Radio Input 7 Click High	[Nov/30/17] 23:48:26
EVENT	State changed Vault control - VAULT	Radio Input 7 Click State: On	[Nov/30/17] 23:48:26
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 3 Click Status: Radio Input 3 Click Low	[Nov/30/17] 23:48:26
EVENT	State changed Vault control - VAULT	Radio Input 3 Click State: OFF	[Nov/30/17] 23:48:26
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 3 Click Status: Radio Input 3 Click High	[Nov/30/17] 23:48:25
EVENT	State changed Vault control - VAULT	Radio Input 3 Click State: On	[Nov/30/17] 23:48:25
EVENT	Device now in step Vault control - VAULT	9R 27L R2 Step: 3	[Nov/30/17] 23:38:54
EVENT	Device now in step Vault control - VAULT	9R 27L R1 Step: 3	[Nov/30/17] 23:38:54
EVENT	Device now in step Vault control - VAULT	9L 27R EDGE Step: 0	[Nov/30/17] 23:38:36
EVENT	Device now in step Vault control - VAULT	13 31 EDGE Step: 0	[Nov/30/17] 23:38:32
EVENT	Device now in step Vault control - VAULT	13 31 EDGE Step: 1	[Nov/30/17] 23:38:18
EVENT	Device now in step Vault control - VAULT	9L 27R EDGE Step: 1	[Nov/30/17] 23:38:18
EVENT	Device now in step Vault control - VAULT	9R 27L R2 Step: 1	[Nov/30/17] 23:38:04
EVENT	Device now in step Vault control - VAULT	9R 27L R1 Step: 1	[Nov/30/17] 23:38:04

Event Log

Date/Time: 2017-12-06-09.45.30

Page: 3

Level	Description Reported By	Affects [Parameters]	Reported At
EVENT	Device now in step Vault control - VAULT	9R 27L R2 Step: 3	[Nov/30/17] 23:38:04
EVENT	Device now in step Vault control - VAULT	9R 27L R1 Step: 3	[Nov/30/17] 23:38:04
EVENT	User acknowledged alarm Touch Screen - OPERATIONS	OPERATIONS	[Nov/30/17] 23:37:59
EVENT	Device now in step Vault control - VAULT	9R 27L R2 Step: 1	[Nov/30/17] 23:37:57
EVENT	Device now in step Vault control - VAULT	9R 27L R1 Step: 1	[Nov/30/17] 23:37:57
EVENT	Device now in step Vault control - VAULT	9R 27L R2 Step: 3	[Nov/30/17] 23:37:56
EVENT	Device now in step Vault control - VAULT	9R 27L R1 Step: 3	[Nov/30/17] 23:37:56
EVENT	User logged on Touch Screen - OPERATIONS	OPERATIONS Name: USER	[Nov/30/17] 23:37:48
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 3 Click Status: Radio Input 3 Click Low	[Nov/30/17] 23:18:00
EVENT	State changed Vault control - VAULT	Radio Input 3 Click State: OFF	[Nov/30/17] 23:18:00
EVENT	Device now in step Vault control - VAULT	13 31 EDGE Step: 0	[Nov/30/17] 23:06:50
EVENT	Device now in step Vault control - VAULT	9L 27R EDGE Step: 0	[Nov/30/17] 23:06:50
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 3 Click Status: Radio Input 3 Click High	[Nov/30/17] 23:03:01
EVENT	State changed Vault control - VAULT	Radio Input 3 Click State: On	[Nov/30/17] 23:03:01
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 7 Click Status: Radio Input 7 Click Low	[Nov/30/17] 21:26:55
EVENT	State changed Vault control - VAULT	Radio Input 7 Click State: OFF	[Nov/30/17] 21:26:55
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 7 Click Status: Radio Input 7 Click High	[Nov/30/17] 21:11:55
EVENT	State changed Vault control - VAULT	Radio Input 7 Click State: On	[Nov/30/17] 21:11:55
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 5 Click Status: Radio Input 5 Click Low	[Nov/30/17] 21:11:55
EVENT	State changed Vault control - VAULT	Radio Input 5 Click State: OFF	[Nov/30/17] 21:11:55
EVENT	L-854 Radio Control input Vault control - VAULT	Radio Input 5 Click Status: Radio Input 5 Click High	[Nov/30/17] 21:11:54
EVENT	State changed Vault control - VAULT	Radio Input 5 Click State: On	[Nov/30/17] 21:11:54
EVENT	Device now in step Vault control - VAULT	WINDCONE Step: 1	[Nov/30/17] 17:35:23
EVENT	Device now in step Vault control - VAULT	BEACON Step: 1	[Nov/30/17] 17:35:23



Federal Aviation Administration

Memorandum

Date: December 1, 2017

To: Jan Deak, Paradise District Manager (A)

From: Ernie Young, Air Traffic Manager, TMB ATCT

Subject: N537HF

I received a phone call this morning from John Spicer, Miami Executive Airport Manager, informing me that there had been an aircraft accident last night reported to them at 0515Z (0015L) involving N537HF (C172). He stated that when the pilot was interviewed, he mentioned that he was given a landing clearance by the tower and that the runway lights were turned off prior to him landing.

Upon reviewing the FALCON and the DALR:

03:52:55 – N537HF made initial contact with the tower advising them that they were 10 miles east and inbound for landing.

LCS instructed N537HF to enter left traffic for runway 9L and cleared to land.

N537HF responds "cleared to land runway 9L."

03:53:12 PRE CLOSING statement made as per the closing checklist.

03:55:55 LCS begins closing statement. FALCON shows N537HF is on a 2-mile base to final.

No further recording is heard after the closing statement.

I am waiting to interview the controllers that were on duty last night.

Please call me should you have any other questions at [REDACTED]

TMB Closing Information

Time change was on Sunday November 5. DALR review was from 10:30pm to 11:10pm local time. MIA coordination could have been done prior to 10:30pm, however this would not have been timely. All times in the spreadsheet are UCT. Only heard reference to ATIS for outgoing aircraft once (12/5) out of about twenty departures.

Date	Day	Time of Pre Closing Statement	Time of MIA Apch coordination	Time of Broadcast of closing statement	Comments	Time last ATIS was cut	Time ATIS was changed to ASOS
1-Nov	W	0250z	0257z	0300z		0153z	0300z
2-Nov	TH	0238	0238	0300		0153	0259
3-Nov	F	0245	0253	0259		0053	0256
4-Nov	S	none	none	0300		2353	0259
5-Nov	SU	0250	0251	0300	ATIS OTS		
6-Nov	M	none	Attempted 0558	0400	At 0357z adzd N16281 closing	0153	0400
7-Nov	T	0350	0356	0400		0253	Never switched
8-Nov	W	0351	0359	0400	At 0253z Hotel was bcst, and at 0350z Golf was put back on and it stayed on through 0410z when I stopped monitoring	0253	Never switched
9-Nov	TH	0350	0350	0400	Good coord with N4AY still in the pattern.	0253	0400
10-Nov	F	none	0353	0400		0253	0358
11-Nov	S	none	none	0400		0253	0359
12-Nov	SU	none	0354	0400	0354z adzd inbd switching to PCL at 0400z	0253	0354
13-Nov	M	none	0358	0400		0300	0400
14-Nov	T	0350	0358	0400		0248	0402
15-Nov	W	none	0354	0400		0253	0400
16-Nov	TH	0350	0355	0359	0253z ATIS stated "better than five thousand and five"	0253	0358
17-Nov	F	none	0358	0400		0153	0356
18-Nov	S	none	none	0400		0253	0359
19-Nov	SU	0352	0357		At 0357z N4PD said "hit the rwy lgts for 9L please". Controller responded "I think there is only PCL for 9R."	0253	0357
20-Nov	M	none	none	0500	Open til midnight for auto race	0253	0502
21-Nov	T	0350	0350	0400		0253	0400
22-Nov	W	none	none	0400	0359z told N352 two minutes til closing	0253	0401
23-Nov	TH	none	0357	0400		0253	0358
24-Nov	F	none	0357	0400		0253	0356

TMB Closing Information

25-Nov	S	0355	0354	0400	Appears PCL is not working, lgts are on. Atis U on from 0353 til 0354 then cut V 0353	0353	0359
26-Nov	SU	0355	0358	0400		0253	0359
27-Nov	M	none	0357	0400		0300	0400
28-Nov	T	0355	0357	0400	Good wx depiction to pilot, and then coord that to MIA	0253	0401
29-Nov	W	0350	none	0400		0253	0403
30-Nov	TH	0350	0351	0400	At 0359z told N207 "landing at your own risk, twr closing in one minute. 0253z ATIS stated "better than five thousand and five	0253	0359
1-Dec	F	0353	0320	0400	Time of accident	0253	0355
2-Dec	S	none	none	0400		0253	0400
3-Dec	SU	0355	none	0400	Seemed busy, but all positions combined	0253	0356
4-Dec	M	none	0358	0400		0253	0359
5-Dec	T	UNKN	UNKN	UNKN	Seemed busy, but all positions combined	UNKN	UNKN
6-Dec	W	0350	none	0400	At 0355 adzd N440ES twr closing in two minutes	UNKN	UNKN
		No pre closing statement 16/35 times	No timely coordination 11/35 times	Closing statement bcst 35/35		Old wx on ATIS 5/35 times	ASOS not correctly switched 2/35 times

B. MIDDAY CHECKLIST:

1. **ILS Monitor Panel** – Localizer & Glide Slope monitor normal.
2. **Daily Log** – Review entries & log any additional outages. Sign on, indicate WCLC.
3. **TDM's/SDM** – On, operable, brightness & contrast set as required.
4. **MSAW/CA Warning** – Test MSAW/CA aural alarm system (F7,Z,A,Enter). Check LCN and LCS speaker volumes for audible alarm.

C. CLOSING CHECKLIST:

1. **IFR Delay Data** – Forward to the Miami Tower TMU, (305)869-5432, for inclusion in the daily OPSNET report.
2. **ASOS Statement** – Sign in to ASOS AS “FAAMAN”, ensure “Append Notam” is set to “Yes” and enter “LAST” in the remark section of the METAR. Record closing statement. Review the appended statement for accuracy.
3. **Sign off ASOS**
4. **Pre-Closing Statement** – Broadcast on all frequencies 10 minutes prior to closing. (*Phraseology: “ATTENTION ALL AIRCRAFT, TIME (UTC), TAMIAMI TOWER CLASS DELTA SERVICES WILL BE TERMINATED AT (UTC)”*).
5. **Coordinate** release of airspace with Miami Approach. Include any pertinent information.
6. **Closing Statement** - Broadcast on all frequencies. (*Phraseology: “TIME _____ UTC, TAMIAMI TOWER IS TERMINATING CLASS DELTA SERVICES, CLASS E AIRSPACE NOW IN EFFECT. THE LOCAL AIRPORT ADVISORY FREQUENCY IS 118.9. FOR ADDITIONAL INFORMATION CONTACT MIAMI APPROACH CONTROL ON 119.45. PILOT OPERATED APPROACH LIGHTING IS AVAILABLE ON FREQUENCY 118.9”. TAMIAMI TOWER WILL RESUME CLASS DELTA SERVICES AT _____ UTC.”*)
7. **Switch ATIS Broadcast to ASOS Broadcast.**
8. **Airfield Lighting** – Switch control of airfield lighting to MDAD.
9. **MALSR/RAIL and RWY 13 REIL's** – Set switch to “Air/Ground”
10. **STARS SYSTEM AREA** – “TMB CLSD RWY 9R/27L”
11. **STARS TDMs/SDM** – Brightness/contrast full down.
12. **Equipment** - Reduce lighting intensity on equipment as appropriate.
13. **Radios** – De-select all frequencies.
14. **Daily Log** – Enter COB on FAA Form 7230-4. Print and sign.
15. **IFR Flight Progress Strips** – Bundle and dated.
16. **Sign on/Traffic Count** – Combine/close positions as required. Ensure hourly traffic count entries are complete.
17. **ARTS Certification.** Certify the ARTS entries for controllers that have worked that day.
18. Place all paperwork and bundled flight progress strips in the office box on the 7th floor.