



Candidate NOTAM Contingency System Overview

July 2023



Background

- Currently two systems together provide full NOTAM capability and function
 - U.S. NOTAM System (USNS): legacy platform providing critical NOTAM management functions
 - Federal NOTAM System (FNS): majority of NOTAMs are originated via this platform & primary distribution interface for public
- Primary site for both USNS & FNS is at the Mike Monroney Aeronautical Center in Oklahoma City (OEX)
 - Disaster Recovery (DR) site in Atlantic City (ACY) to handle long-term outages
- Candidate NOTAM Contingency System (CNCS) was developed to address major outage events that render primary NOTAM system site in OEX unavailable
 - Allows creation and distribution of “candidate” NOTAMs
 - Goal is to support pre-flight briefings and continued flight/ATC ops **while primary NOTAM system is returned to service**
 - Short-term solution
- Ongoing NOTAM Modernization will improve the resiliency of the NOTAM system by consolidating USNS and FNS into a single system, and transitioning the system to the Integrated Enterprise Services Platform (IESP) with two sites (Atlanta and Salt Lake City)
 - Tech refresh program is called FNS Sustainment
 - Long-term solution

Approach to Candidate NOTAM Contingency System

Multi-pronged strategy to support continuity of operations during a NOTAM system outage while primary NOTAM system is returned to service:

Provide NOTAMs active at moment outage began



- FNS NOTAM Search will be activated from the DR site to provide access to published NOTAMs
- NOTAMs numbered and published prior to the time the primary site became unavailable will be made available

Update NOTAM info using “candidate” NOTAMs




- To limit the impact on NAS operations, candidate NOTAM entry and distribution will be provisioned
- This capability will enable NOTAM creation and publication (without numbers) until either the primary site or DR site is made fully operational


Keep users informed of system status




- All FNS sites will include information banners providing system status & access to NOTAM resources
- NAIMES and FNS (including SWIM) users will receive notifications (important for NDS/data feed consumers)


Candidate NOTAM Distribution Website

 **Federal Aviation Administration**

 This page only provides Candidate NOTAMs issued during the outage, please consult other sources like NOTAM Search for published NOTAMs prior to outage

 Candidate NOTAM Distribution

Location Search

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LID	Type	Keyword	Number	Condition	Status	Start Date ^	End Date
PSF	DOM	RWY	08/020	14 CLSD EXC APCH SPEED LESS THAN 50KTS	Cancelled	08/27/2020 18:10	03/31/2023 23:59
ZOA	FDC	AIRSPACE		!FDC Y/NNNN ZOA CA..AIRSPACE SAN JOSE, CALIFORNIA... More	Cancelled	01/19/2023 19:30	01/20/2023 01:15
SWF	DOM	SVC	02/116	WX REP NOT AVBL	Cancelled	03/02/2023 19:37	04/30/2024 23:00
SWF	DOM	RWY	03/061	16/34 CLSD EXC MIL OPS	Cancelled	03/03/2023 01:00	03/09/2023 03:00
PSF	DOM	OBST	03/046	OBST TOWER LGT (ASR 1227428) 422831.40N0731604.90W... More	Cancelled	03/05/2023 06:16	03/20/2023 05:16
PSF	DOM	OBST	03/046	OBST TOWER LGT (ASR 1227428) 422831.40N0731604.90W... More	Cancelled	03/05/2023 06:16	03/20/2023 05:16
ZMA	DOM	AIRSPACE		ADS-B, AUTO DEPENDENT SURVEILLANCE REBROADCAST (... More	Active	03/08/2023 00:00	03/09/2023 23:59
ZMP	DOM	AIRSPACE		DCC BRAVO THREE WEEK 2 STNR ALT RESERVATION WI AN AREA ... More	Active	03/08/2023 00:00	03/09/2023 23:59
ZME	DOM	AIRSPACE		ADS-B, AUTO DEPENDENT SURVEILLANCE REBROADCAST (A... More	Active	03/08/2023 00:00	03/09/2023 23:59
ZUA	DOM	AIRSPACE		ZUA AIRSPACE ADS-B, A... More	Active	03/08/2023 00:00	03/09/2023 23:59
ZAK	DOM	AIRSPACE		DCC BRAVO THREE WEEK 2 STNR ALT RESERVATION WI AN ... More	Active	03/08/2023 00:00	03/09/2023 23:59
ZAK	DOM	AIRSPACE	03/325	DCC BRAVO THREE WEEK 2 STNR ALT RESERVATION WI AN ... More	Active	03/08/2023 00:00	03/09/2023 23:59
ONT	FDC	IAP		RNAV (GPS) Y RWY 26L AMDT 2A... RNAV (GPS) Y RWY ... More	Cancelled	03/08/2023 01:00	03/24/2023 00:59

Applicability of Candidate NOTAM Contingency System

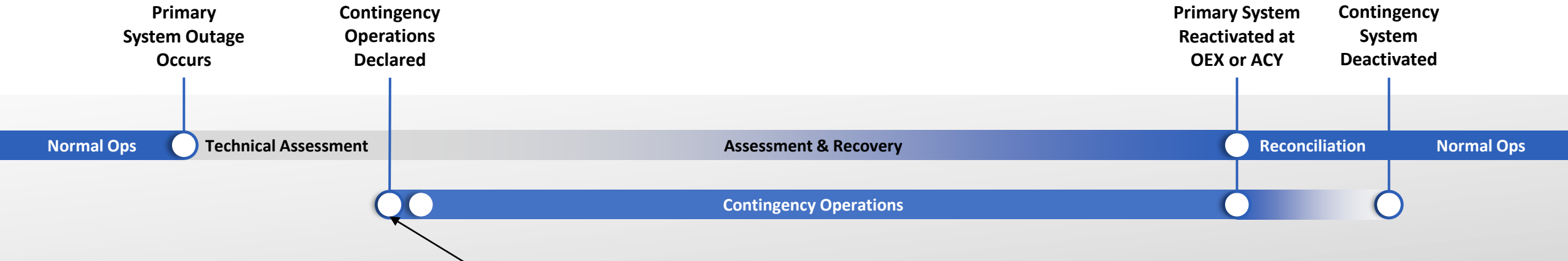
The Candidate NOTAM Contingency System IS applicable to scenarios where:

- USNS is completely unavailable OR the entire OEX site is completely unavailable; AND
- The ACY disaster recovery site instance of the NOTAM Search website is available with an accurate, up-to-date record of active NOTAMs
- System originally designed to address the NOTAM system outage of May 2021, where OEX was rendered unavailable due to extreme weather

The Candidate NOTAM Contingency System is NOT applicable to scenarios where:

- FNS is completely unavailable while USNS is available (FNS users can utilize USNS using existing backup plans)
- A single web application or service is unavailable (i.e., if the NOTAM Manager application is unavailable, but other NOTAM entry applications are available)
- An accurate, up-to-date record of active NOTAMs is unavailable (i.e., if unreliable data propagates through all databases and services)

Timeline



Note: timeline not to scale

Initial Website Banner (+15 min after contingency ops declared):

“The FAA's NOTAM System is currently experiencing service outages. Our technical teams are working to restore the service as soon as possible. This site will be updated as more information becomes available.

NOTAMs issued prior to the outage must be reviewed using official NOTAM source data or the FAA NOTAM Search site located at: <https://notams.aim.faa.gov/notamSearch>.

All other Federal NOTAM System (FNS) services are unavailable at this time.”

Timeline



Note: timeline not to scale

Contingency Operations Banner (+60 min after contingency ops declared):

“The FAA's NOTAM System is currently experiencing service outages. Our technical teams are working to restore the service as soon as possible. This site will be updated as more information becomes available.

To retrieve NOTAMs: NOTAMs issued prior to the outage must be retrieved using official NOTAM source data or the FAA NOTAM Search website located at: <https://notams.aim.faa.gov/notamSearch>. Candidate NOTAMs issued after the outage must be retrieved from the FAA Candidate NOTAM Distribution website located at: <https://notambackup.faa.gov/>.

To issue or cancel NOTAMs: Airport operations, tower light operators, and all other non-FAA issuers of NOTAMs must call Leidos-CONUS Flight Service at 1-877-487-6867 (1-877-4-US-NTMS) (CONUS) or, if in Alaska, call 1-907-283-8469 (Kenai), 1-907-474-4952 (Fairbanks), or 1-907-586-7385 (Juneau) to issue candidate NOTAMs effective within eight (8) hours or to cancel NOTAMs. All other issuers must follow established contingency procedures.

All other Federal NOTAM System (FNS) services are unavailable at this time.”

Timeline



Note: timeline not to scale

Reconciliation Banner (+4 hours after contingency ops declared):

“The FAA's NOTAM System has returned to service. As more information becomes available, the Candidate NOTAM Distribution website will be updated to provide additional guidance on the status of reconciling the Candidate NOTAM Distribution website and the NOTAM Search website.

Continue to cross-check all NOTAMs between using official NOTAM source data or the FAA NOTAM Search website (located at <https://notams.aim.faa.gov/notamSearch>), and the Candidate NOTAM Distribution website (located at <https://notambackup.faa.gov/>), until all NOTAMs are reconciled and contingency procedures have terminated.

NOTAM issuers: Monitor both the FAA NOTAM Search website and the Candidate NOTAM Distribution website to ensure all candidate NOTAMs are reconciled properly.”

Timeline



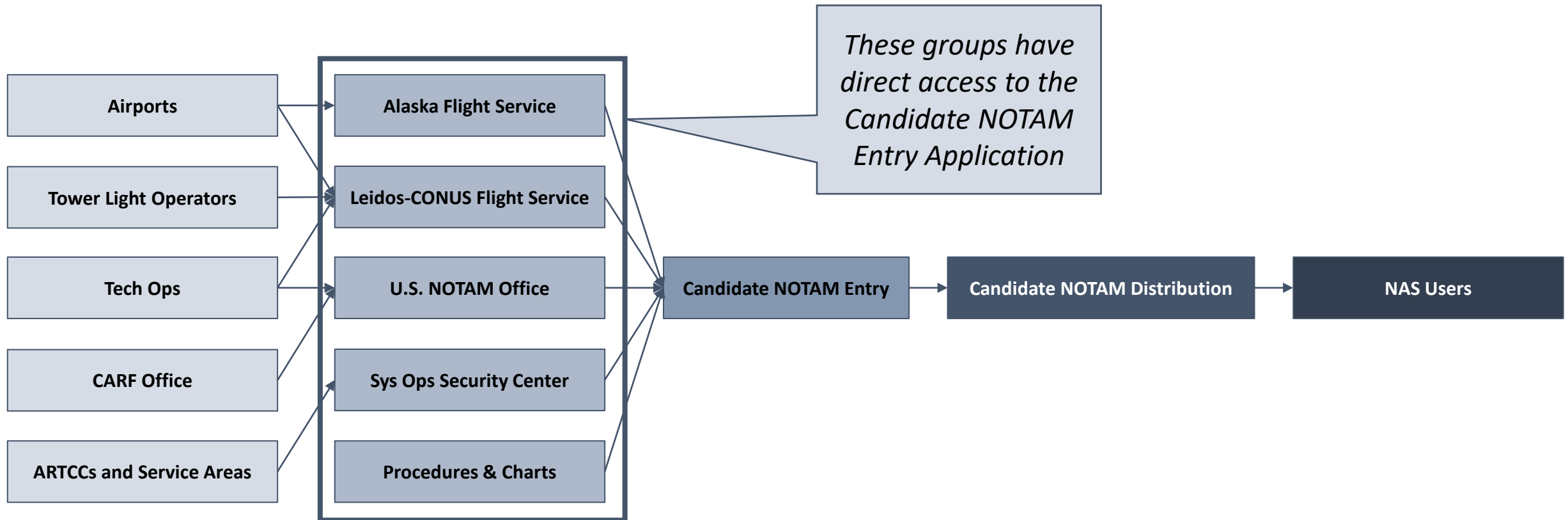
Note: timeline not to scale

Normal Ops Banner:

“The FAA's NOTAM System is functional as normal. Please visit the FAA NOTAM Search website located at <https://notams.aim.faa.gov/notamSearch> to retrieve active NOTAMs.

NOTAM issuers: In the event a candidate NOTAM has not been reconciled properly, contact the office to whom the candidate NOTAM was originally submitted.”

Issuing Candidate NOTAMs During Contingency Ops



Reconciliation Process

- Once the primary NOTAM system has been reactivated, NOTAM entry may resume using FNS and USNS applications
- At this point, the process for reconciling the candidate NOTAM system with the primary NOTAM system will begin as follows:
 - Issuers of candidate NOTAMs will take the candidate NOTAMs they created and re-enter them into the appropriate FNS or USNS application
 - Each issuing entity will notify the U.S. NOTAM Office (USNOF) upon completion of their reconciliation
 - Once USNOF has confirmed that reconciliation is complete, they will notify Technical Operations for stakeholder notification
 - Upon notification by USNOF, Technical Operations will deploy the “Normal Ops” banner to the CNCS distribution website indicating that normal operations have resumed
- After an outage event is over:
 - All records from the candidate NOTAM contingency system will be archived
 - All candidate NOTAMs will be purged from the distribution website
 - Post-event analysis will include an assessment of the reconciliation process

Assumptions of Candidate NOTAM Contingency System

- 1. Previously issued NOTAMs are available:**
 1. Via backup instance of NOTAM Search website
 2. Via local NOTAM databases of SWIM NOTAM Distribution Service consumers
 3. Via the NOTAM API
- 2. Primary NOTAM system can be recovered:**
 1. At OEX within ~4 hours, or
 2. At DR site at ACY within ~4 hours
- 3. Candidate NOTAMs are only created for conditions effective within 8-hour time frame:**
 1. To manage NOTAM volume during contingency ops, authorized users of the candidate NOTAM entry application will not create candidate NOTAMs for conditions that take effect more than 8 hours in the future

Limitations of Candidate NOTAM Contingency System

The Candidate NOTAM distribution website will:

- **NOT** include NOTAMs published prior to the beginning of an outage
 - Those will be available on backup versions of the NOTAM Search website, the NOTAM API, and in local databases owned and operated by air carriers, dispatch systems, third-party flight planning software providers, and other ANSPs
- **NOT** provide a means for supporting an indefinite outage of the primary NOTAM system
- **NOT** provide official numbering of new candidate NOTAMs
- **NOT** provide a machine-to-machine data feed
- **NOT** include new military NOTAMs created after the beginning of an outage event
 - Those must be obtained from DoD's contingency system during an outage to the primary FAA NOTAM system
- **NOT** include inbound international NOTAMs issued by other ANSPs
- **NOT** include the ability to "cross over" or send FAA candidate NOTAMs to other ANSPs
- **NOT** automatically populate candidate NOTAMs into the main NOTAM system at the end of an outage
 - Documentation includes processes for manual reconciliation

Resources

- Candidate NOTAM Contingency System Distribution Site:
 - <https://notambackup.faa.gov/>
 - To be activated in event of contingency ops
- Test version for familiarization only:
 - <https://notambackup-ppd.faa.gov/>
 - **Not to be used for pre-flight info**
- User guides available on Aeronautical Information Services website:
 - https://www.faa.gov/air_traffic/flight_info/aeronav/notams/
- Submit questions to the Aeronautical Inquiries Portal, selecting the “Other” category:
 - https://www.faa.gov/air_traffic/flight_info/aeronav/aero_data/Aeronautical_Inquiries/