

## Comprehensive Technical Statement

Media Sales LLC, Licensee

Minor Amendment to FM Translator Construction Permit

K243BN, FCC Facility ID # 92373, Laveen, AZ (Silent)

LMS File Number 0000212417

### Introduction

On March 13, 2023, Media Sales LLC, as proposed assignee, filed LMS application File Number 0000212417. This application proposed a minor modification to K243BN.

The minor modification was granted on April 5, 2023. Media Sales LLC closed on the transaction on May 9, 2023, and is now the licensee.

This amendment proposes the following changes to the Construction Permit:

- Primary Station
- Effective Radiated Power

This Comprehensive Technical Statement and the associated application are complete. The filing stands on its own as a minor change to the existing license without reference to the original application.

### Silent Station

K243BN is presently silent. It must return to the air by 12:01 AM on October 4, 2023 in order to avoid loss of the license. The licensee is prepared to return the station to the air expeditiously upon grant of this amendment.

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## **Not an AM Improvement Window Translator**

K243BN was first licensed in 2000 (BLFT-20000807ACS). It was not modified under the 250-mile AM Improvement Window, and it carries no restrictions as to the primary station.

## **Data Sources**

Distances were calculated using the FCC method defined in 73.208 of the Commission's Rules.

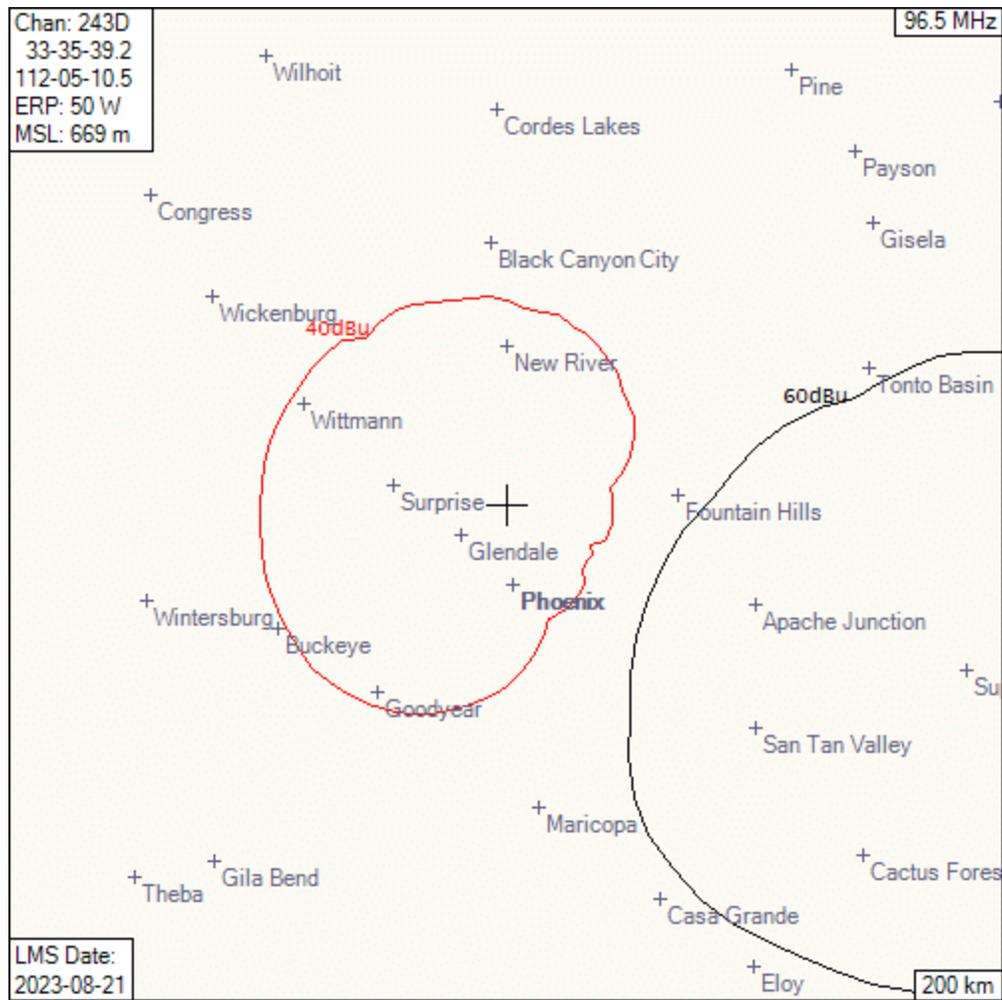
All contours shown in this report were generated using antenna center above mean sea level, NAD-83 coordinates, and the FCC API NED-1 terrain dataset.

Dates shown on the maps represent the last change date in the LMS downloads in use at the time this statement was prepared.

## **Detailed Interference Study**

The following collection of maps and the narrative accompanying each show that no prohibited overlap will occur between the proposed facility and any potentially conflicting facility or proposal. Interfering f(50,10) contours are shown as red polygons, and protected f(50,50) contours are shown as black polygons.

# Map 1 – Co-channel Outbound Interference

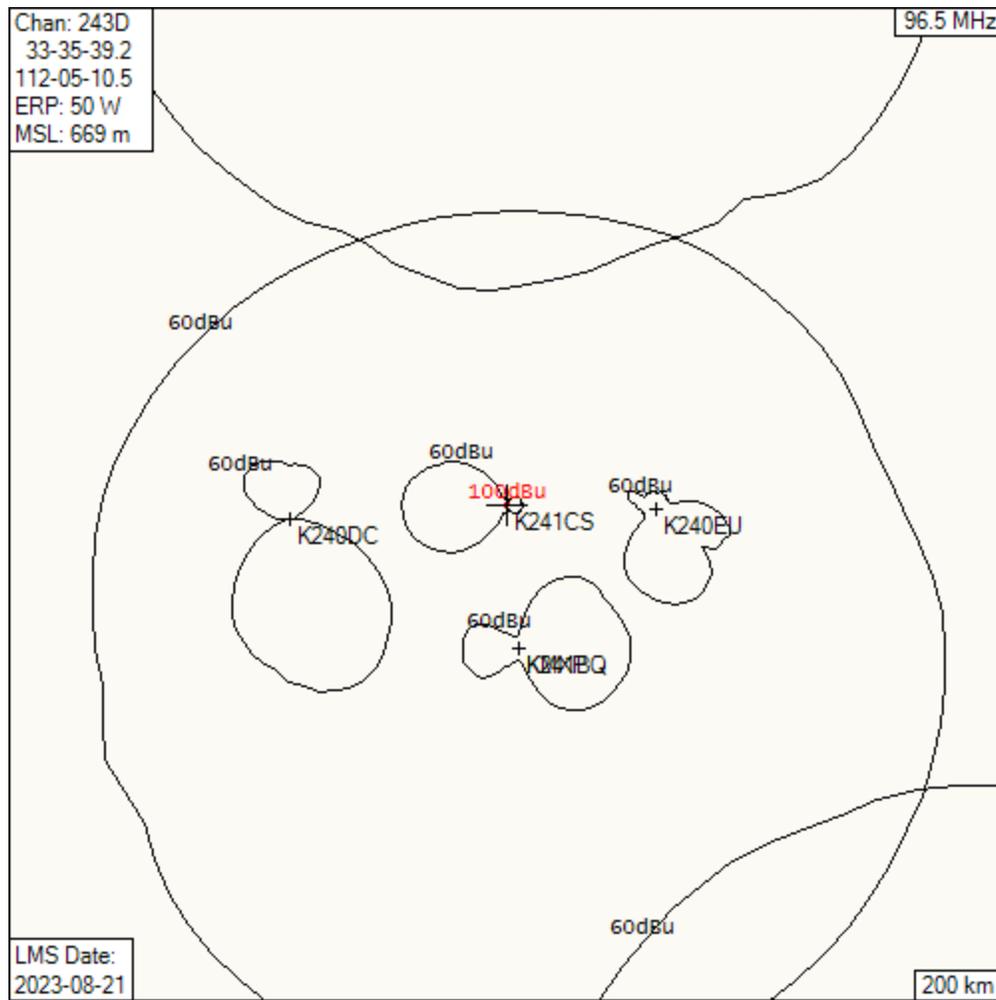


There is no overlap of the interfering contour with the protected contour of any co-channel station or proposal.

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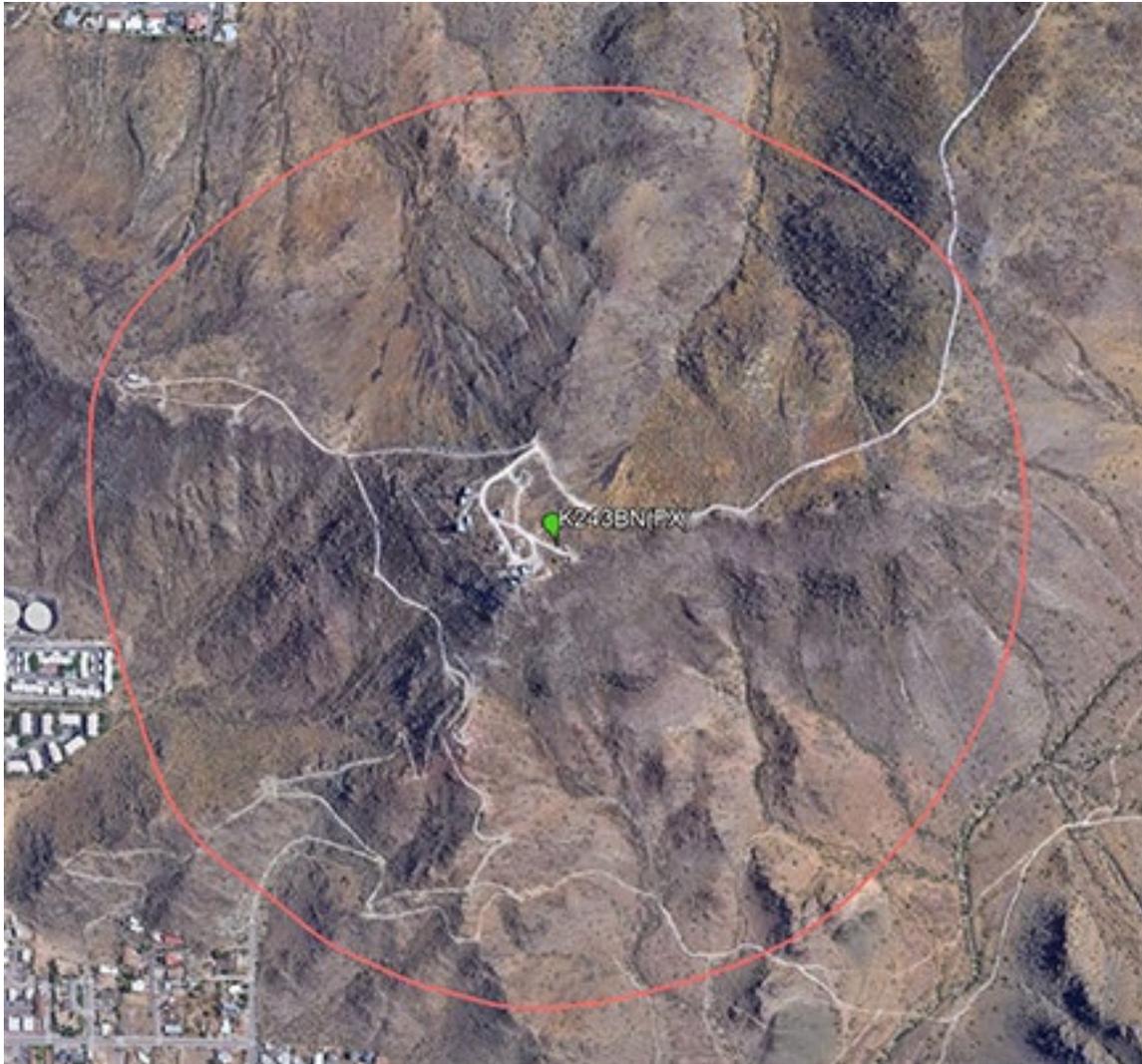
### Map 3 – Second/Third Adjacent Outbound Interference Detail



The transmitter is co-located with second-adjacent K241CS (FCC Facility ID # 156046), and within the protected 60 dBu f(50,50) contour of KMXP (FCC Facility ID #6361). In both cases, the worst-case interfering signal level is greater than 100 dBu.

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The following Google Earth image shows the area of the transmitter site. The red circle is set at 670 m horizontal distance:



The nearest residence is more than 670 m away horizontally and 240 m lower in elevation, for a slant range of 712 m. At the proposed 50 W ERP, the free-space distance to the 100 dBU interfering contour is 497 m, significantly less than the distance to the nearest residence. The only road within 670 meters of the tower is the access road to the site itself.

Since there is no population in the potential interference area, the proposal meets the interference requirement exception contained in §74.1204(d).

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## **IF Separation requirements**

The proposed ERP is 50 Watts. There are no IF separation requirements with respect to translators with ERP of less than 100 W.

## **Channel 6 Interference**

The proposed facility is not on a channel that is implicated in channel 6 interference.

## **International**

The FM Agreements with Canada and Mexico require evaluation and potential coordination of any proposal within 320 km of the border.

The distance to the nearest point along the US/Canada border is 1,712 km. Coordination with Canada is not required.

The distance to the nearest point along the US/Mexico border is 202.4 km from the proposed site. Evaluation with respect to Mexican facilities and proposals is required.

This application proposes only one technical change from the current license: a reduction in ERP. This should not require further coordination with Mexico.

## **Quiet Zones**

The proposed site is outside the National Radio Quiet Zone (National Radio Astronomy Observatory Notification Area) in West Virginia.

The proposed site is outside the Arecibo Observatory notification area in Puerto Rico.

The proposed site is not within a 100 km extension of the Table Mountain Radio Receiving Zone in Colorado.

## **Protected Monitoring Stations**

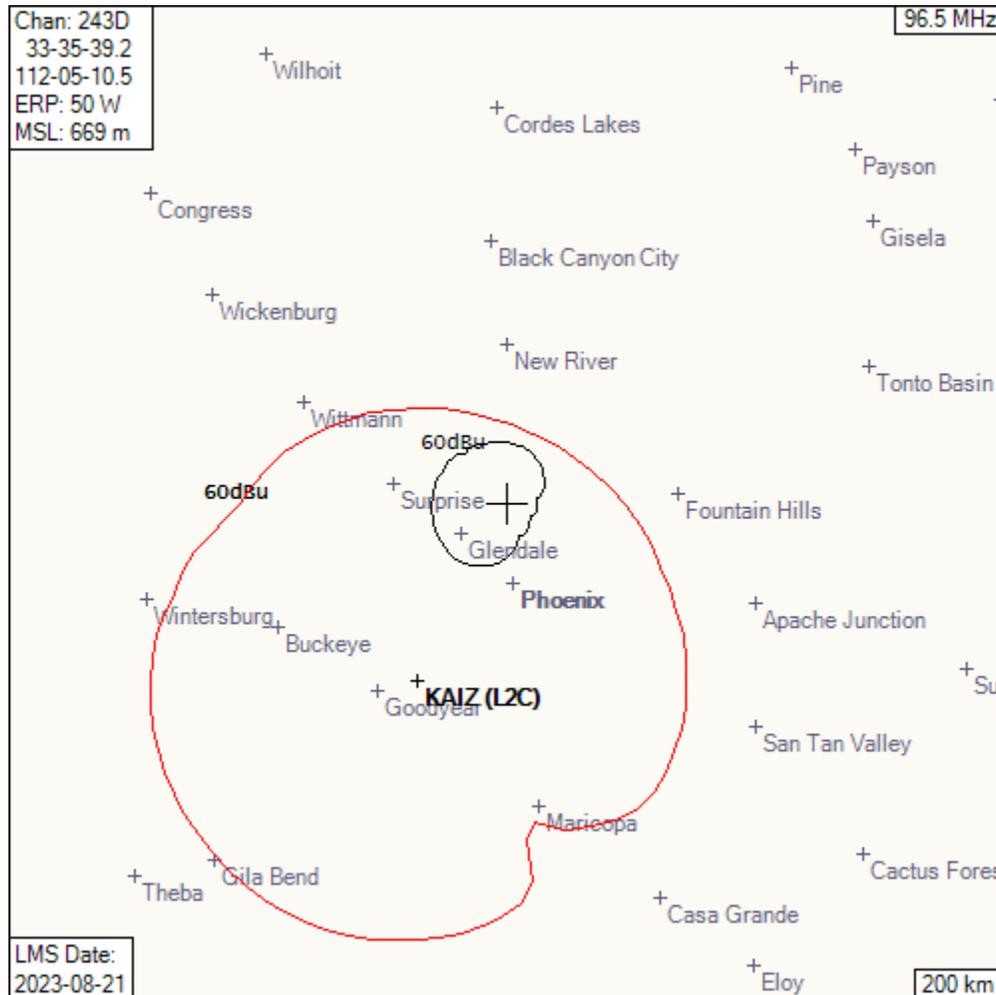
The nearest Protected Monitoring Station is 326 km distant, in Douglas, AZ. This is well beyond any potential 80 dBu contour.

## Minor Change

This application proposes a reduction from the licensed ERP using the same antenna. It is therefore self-evident that the existing and proposed contours overlap. No change in frequency is proposed. Therefore, this application is for a minor change.

## Fill-In Translator

The proposed primary station is KAIZ, Avondale, AZ, FCC Facility ID # 2749.



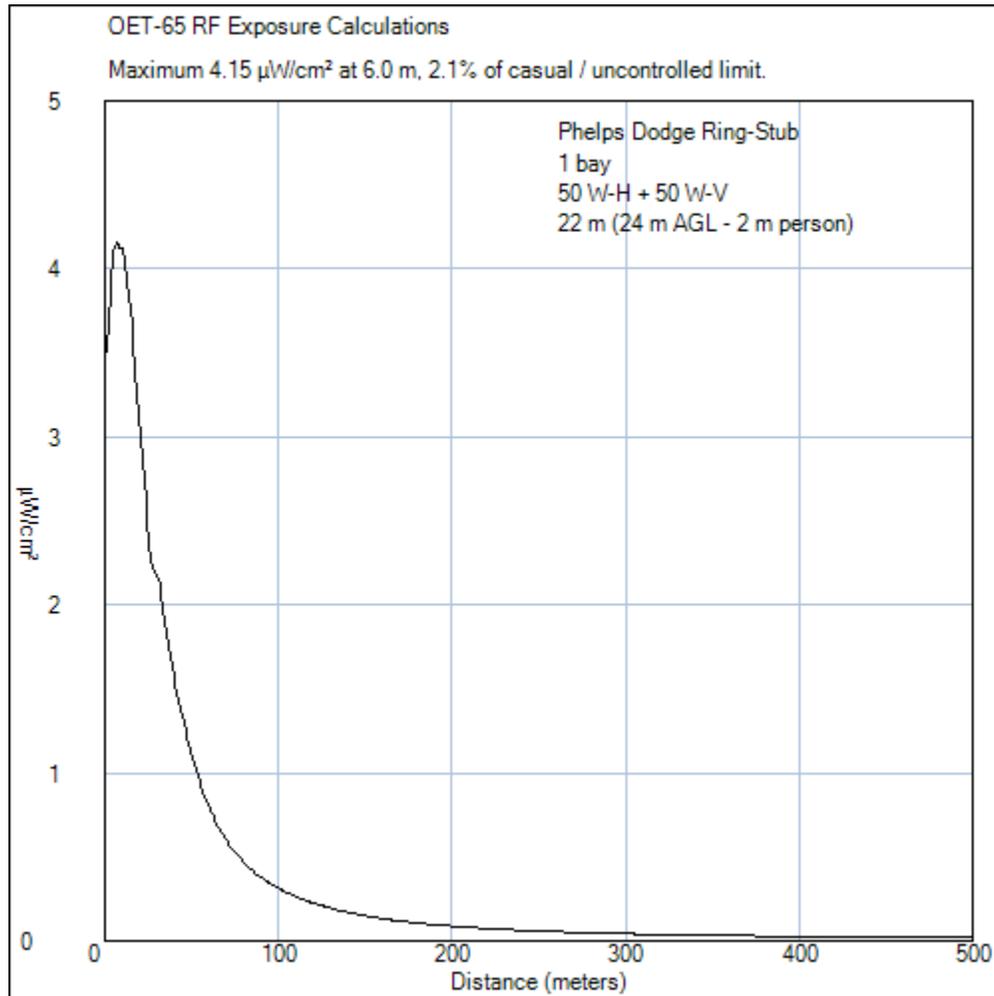
The KAIZ 60 dBu f(50,50) contour is shown as a red polygon. The proposed 60 dBu f(50,50) contour, shown as a black polygon, is entirely contained within the KAIZ contour. A retransmission consent agreement has been signed. Therefore, the proposal is for fill-in service.

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## Environmental

The proposed site is an existing 24 m tower. No construction, excavation, or increase to the height of the tower is proposed.

The proposed effective radiated power is 50 W-H + 50 W-V. The existing one-bay antenna is mounted at 24 m above ground level. Assuming the worst-case OET Type 1 antenna model, the OET-65 algorithm returns a maximum exposure of 2.1% of the limit for casual / uncontrolled exposure:



Appropriate access controls and safety signage are provided. The applicant agrees to coordinate with other users of the site to reduce power or shut down in order to protect workers at the site.

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## LMS Engineering Data

Channel	243
Coordinates (NAD-83)	33 35 39.2 N Lat 112 05 10.5 W Lon
ASR	None, not required. TOWAIR determination included below .
Overall Tower Height AGL	24 m
Site Elevation AMSL	645 m
Radiation Center AGL	24 m
Radiation Center AMSL	669 m
Effective Radiated Power	0.05 kW-H + 0.05 kW-V
Antenna type	Directional – pattern below
Primary Station	Call Sign KAIZ (FM) Facility ID 2749 City, State Avondale, AZ
Delivery Method	Off-air
Antenna	
Manufacturer	Bext
Model	TFC2K-D
# Sections	1
Section spacing	-
Type	Directional – pattern below

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## Directional Pattern

Rotation	0.00						
az	eRel	az	eRel	az	eRel	az	eRel
0	0.99	90	0.23	180	0.50	270	1.00
10	0.97	100	0.23	190	0.63	280	1.00
20	0.91	110	0.23	200	0.74	290	1.00
30	0.84	120	0.23	210	0.84	300	1.00
40	0.74	130	0.23	220	0.91	310	1.00
50	0.63	140	0.23	230	0.97	320	1.00
60	0.50	150	0.23	240	0.99	330	1.00
70	0.37	160	0.23	250	1.00	340	1.00
80	0.23	170	0.37	260	1.00	350	1.00
<b>Supplemental Radials</b>							
none							

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# TOWAIR Determination Results

## \*\*\* NOTICE \*\*\*

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

<b>DETERMINATION Results</b>	
<b>Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.</b>	
<b>Your Specifications</b>	
<b>NAD83 Coordinates</b>	
Latitude	33-35-39.2 north
Longitude	112-05-10.5 west
<b>Measurements (Meters)</b>	
Overall Structure Height (AGL)	24
Support Structure Height (AGL)	0
Site Elevation (AMSL)	645
<b>Structure Type</b>	
LTOWER - Lattice Tower	

### [Tower Construction Notifications](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW

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