

Flight Procedures Cover Page	Task Action: FLIGHT CHECK	Task Type: IAP	Estimated Chart Date: 06/17/2021	APWS Task ID: 187BA9BFEBD14A4496CCB12F4FD91A0F	APWS Project ID: 70BAC507CE304590B7BF84117D0374ED
Procedure: VOR/DME RWY 36 AMDT 1B		Enroute: NO	Specialist: Ciarlone, Mark		Agreement Number:
Airport ID: KFCM			Airport City: MINNEAPOLIS		State: MN
Facility ID:	Facility Type:	Flight Inspection Remark Type: New FC Slot			
<p><b>Procedure Comments:</b>          PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJF-1000) MEMO, DATED JUNE 4, 2020, SUBJECT: FLIGHT INSPECTION OF NEW CONTROLLING OBSTACLES.</p> <p>REQUEST AFS APPROVAL TO UPDATE RWY 36 20:1 VGSI MITIGATION LETTER (CANCELS T-NOTAM 0/0079).</p> <p>NEW CIRCLING CAT C OBSTACLE.</p> <p>ACTIVE DATA USED.</p> <p>CONTACT: ALLAN WILL, AJV-A423 MANAGER, 405.954.6103</p>					

QUALITY  
24  
CHECKED

Digitally signed by  
**MARY MCDONALD**  
Feb 01, 2021

QUALITY  
12  
CHECKED

VOR/DME FCM	APP CRS	Rwy ldg	2690
<b>117.7</b>	035°	TDZE	905
Chan 124		Apt Elev	906

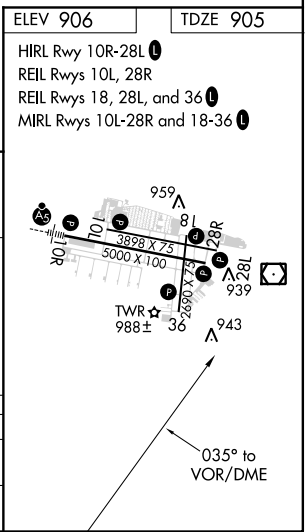
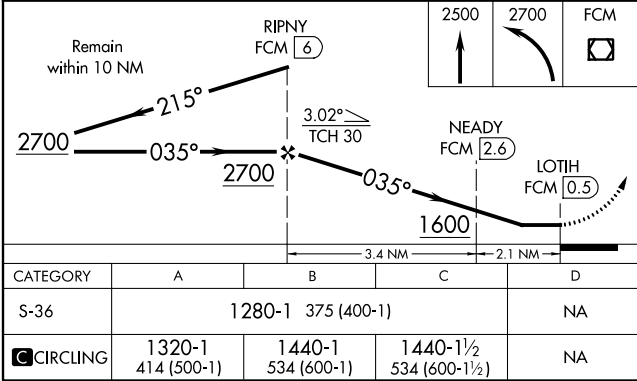
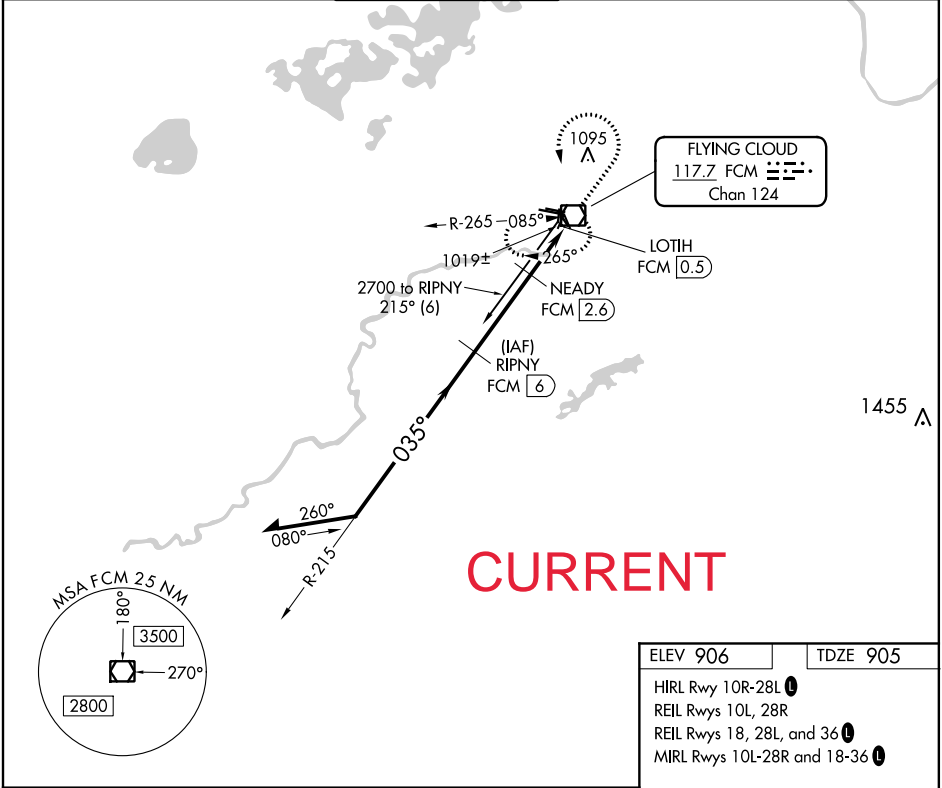
VOR/DME RWY 36

FLYING CLOUD (FCM)

When local altimeter setting not received, use Minneapolis St Paul Intl/Wold Chamberlain altimeter setting and increase all MDA 40 feet and S-36 Cat C visibility ½ mile.  
Helicopter visibility reduction below 1 SM NA. Night Landing: Rwy 18/36 NA.

MISSED APPROACH: Climb to 2500 then climbing left turn to 2700 direct FCM VOR/DME and hold.

ATIS <b>124.9</b>	MINNEAPOLIS APP CON <b>134.7 284.7</b>	FLYING CLOUD TOWER ★ <b>119.15 (CTAF)</b>	GND CON <b>121.7</b>	CLNC DEL <b>121.7</b> (When twr closed)	UNICOM <b>122.95</b>
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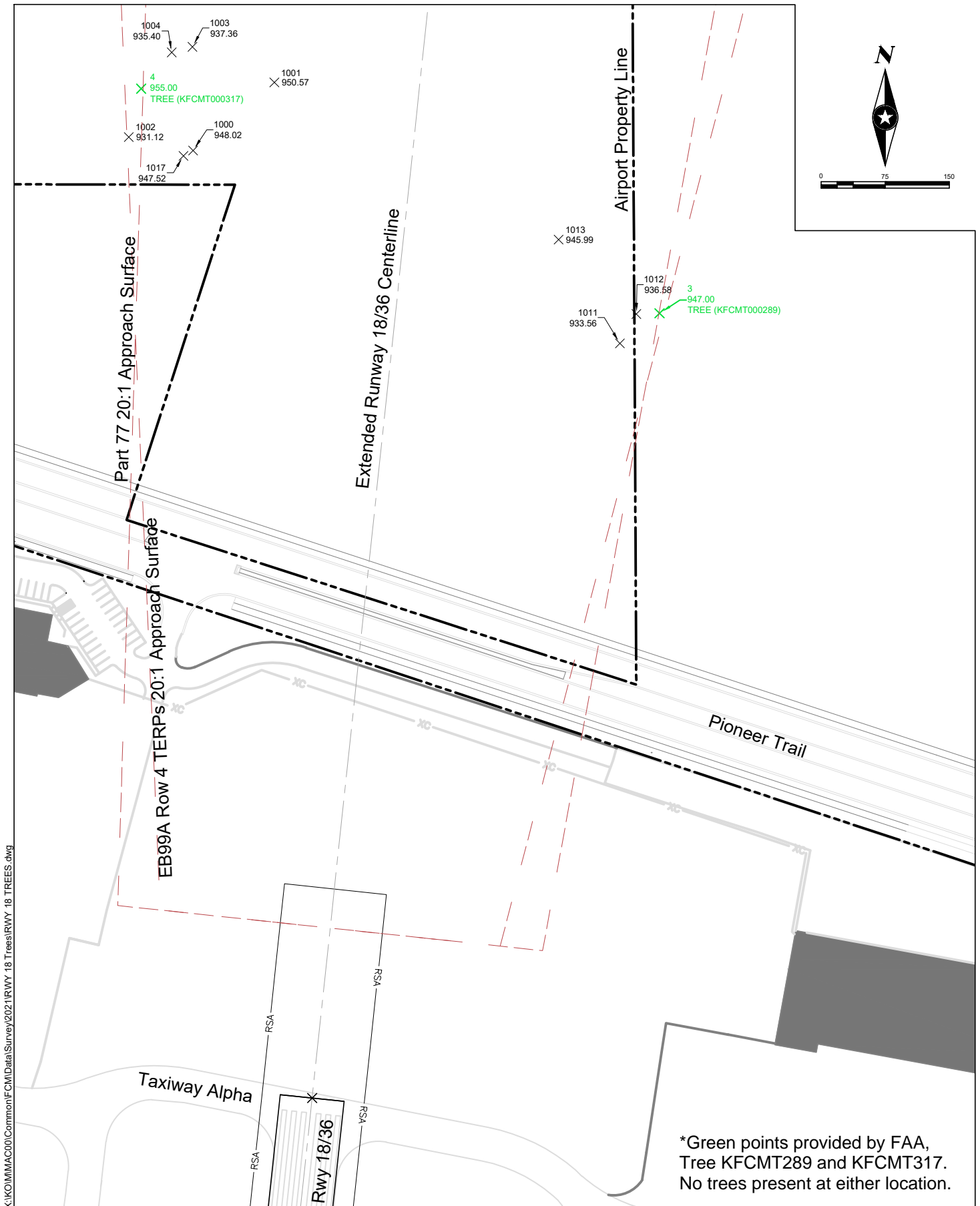




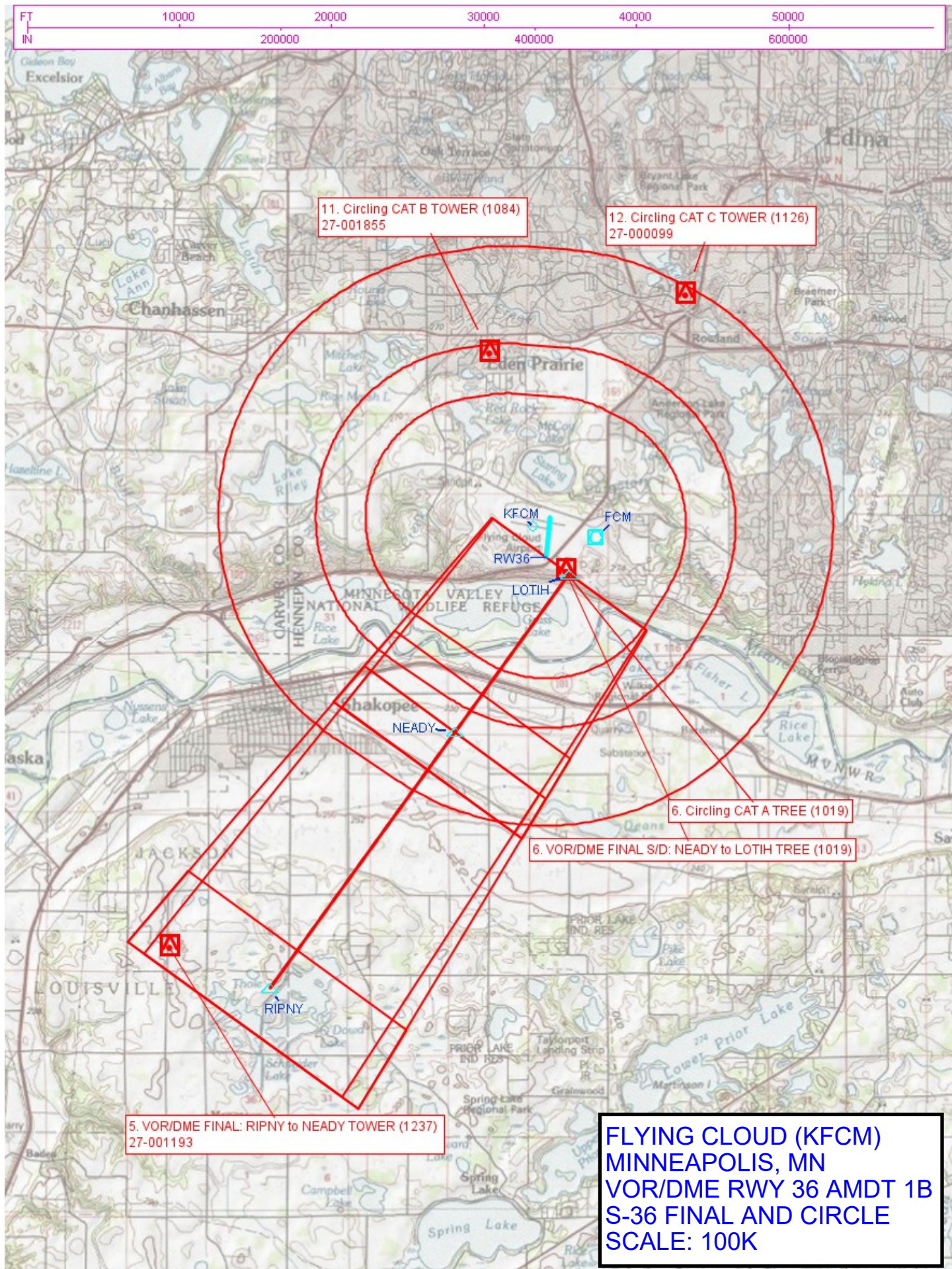
# Runway 18 Tree 20:1 Penetrations

Flying Cloud Airport (FCM)  
Eden Prairie, Minnesota

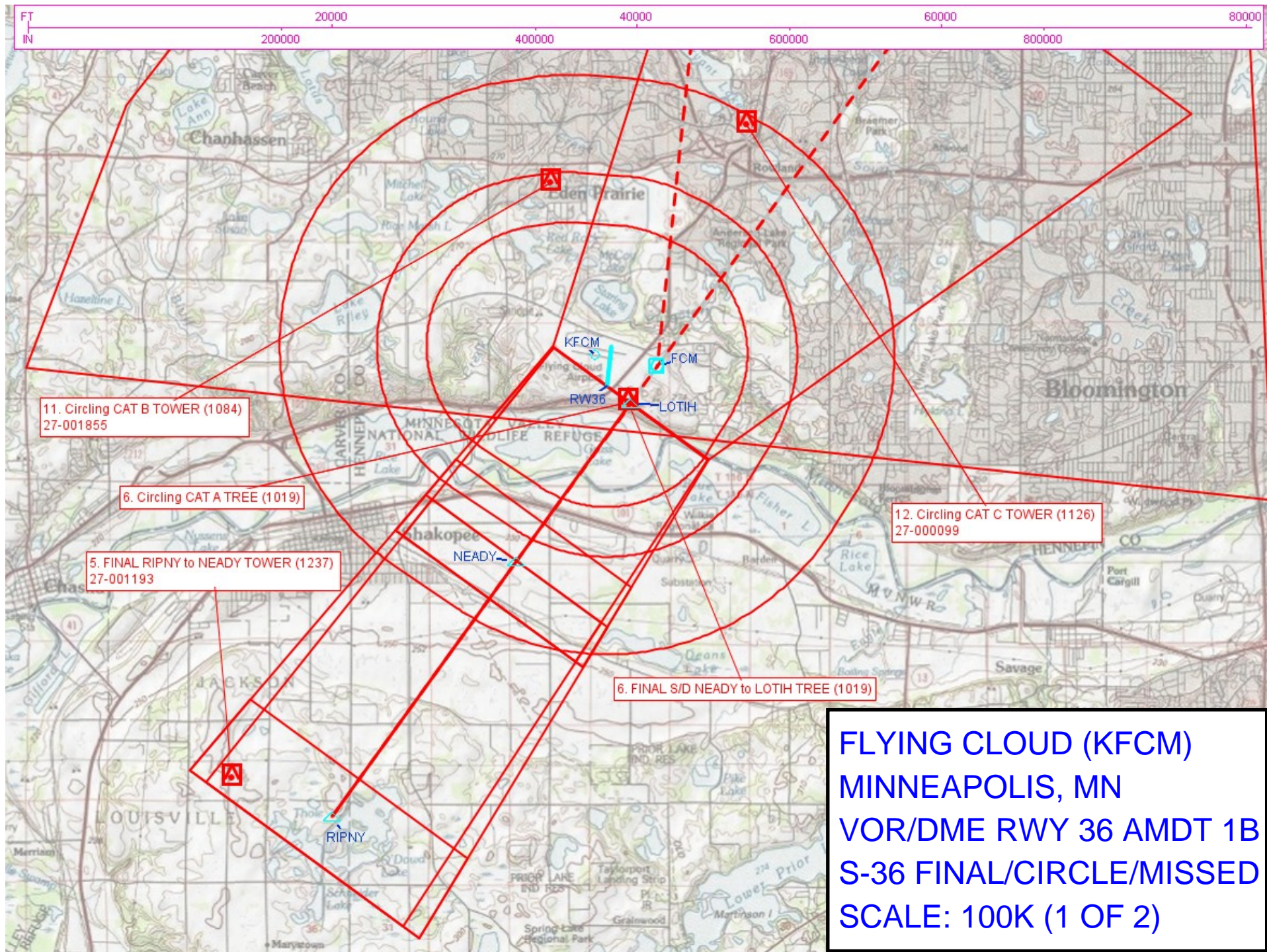
May 2021













FLYING CLOUD (KFCM)  
MINNEAPOLIS, MN  
VOR/DME RWY 36 AMDT 1B  
S-36 FINAL/CIRCLE/MISSED  
SCALE: 100K (2OF 2)

9. Missed Level Surface AAO (1306)

12. Circling CAT C TOWER (1126)  
27-000099

11. Circling CAT B TOWER (1084)  
27-001855

KFCM

Flying Cloud Airport

F.C.M.

11. Circling CAT B TOWER (1084)  
27-001855

Approval Request: Flying Cloud, Minneapolis, MN, (KFCM)  
RNAV (GPS) RWY 36  
VOR/DME RWY 36  
ILS OR LOC RWY 10R (CIRCLING)  
RNAV (GPS) RWY 10L (CIRCLING)  
RNAV (GPS) RWY 10R (CIRCLING)  
RNAV (GPS) RWY 28L (CIRCLING)  
RNAV (GPS) RWY 28R (CIRCLING)  
VOR RWY 10R (CIRCLING)

IAW FAAO 8260.3D para 3-3-2 (c).4.(b).1. Approval required to allow night operations using VGSI to mitigate 20:1 obstacle penetration. Flight Standards approval is required to allow night operations using VGSI to mitigate 20:1 penetrations:

914 Road 27-051641 444915.20N/0932718.30W (3.78FT)  
916 Road 27-051652 444914.50N/0932722.83W (1.73FT)

The 20:1 penetrating obstacles do not penetrate the VGSI OCS. Procedure noted: "RWY 18, 36 at Night, operational VGSI required, remain on or above VGSI glidepath until threshold." Procedure has passed flight inspection and approved of PAPI configuration and charting of VDA of 3.00/30. Relocation or additional facilities will have no effect on waiver requirement.



# Federal Aviation Administration

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## Memorandum

Date:

To: Manager, Production Integration Team, AJV-341

From: Manager, Flight Technologies and Procedures Division, AFS-400

Gary L. Powell

Signed By: Gary L. Powell  
Tue Feb 03 2015 10:53:41 GMT-0500 (Eastern Standard Time)

**SIGN HERE**

Prepared by: Flight Procedure Implementation & Oversight Branch, AFS-460

Subject: Approval Request; AJV-341 Memorandum Dated 08/01/2014

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Your request to utilize the visual glideslope indicator (VGSI) to mitigate unlit 20:1 visual surface penetrations, per FAA Order 8260.3B, 3.3.2(c.) (2)(b) for night circling operations to RWY 18 at Flying Cloud, Minneapolis, MN was discussed at Flight Standards' Procedure Review Board (PRB) on 09/11/2014 and is approved.

Please direct all inquiries to Danny E. Hamilton, AFS-460, at (405) 954-9359.

### Attachments

cc:

AJV-341

AGL-220

AFS-400/410/420/440/460/470





## Federal Aviation Administration

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# Memorandum

Date: AUG 01 2014

To: Bruce DeCleene, Manager, Flight Technologies and Procedure Division  
THRU: Danny E. Hamilton, Manager, Flight Procedure Implementation & Oversight Branch

From: Jose Alfonso, Manager, Production Strategy and Planning Team, AJV-341

Subject: **ACTION:** Approval Request, FLYING CLOUD, MINNEAPOLIS, MN (KFCM)  
Circling Procedures

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Request for approval to utilize VGSI to mitigate circling visual surface penetrations, per 8260.3B, 3.3.2(c).(2)(b).

**RWY 18 has an ANALPV survey (03/21/2014)**

RWY 18 VGSI (PAPI-4L) set at 3.50/45.0 ft, COMMISSIONED: 06/03/2014

VGSI OCS is clear.

RWY 18 (CIRCLING), 20:1:

<u>MSL</u>	<u>Description</u>	<u>Accuracy</u>	<u>Coordinates</u>	<u>Amount of Penetration</u>
947	TREE (KFCMT000289)	(20/3)	44953.78N/0932709.98W	(10.07)
955	TREE (KFCMT000317)	(20/3)	444956.37N/0932718.40W	(8.21)
941	BLDG (KFCMT000287)	(20/3)	444953.95N/0932717.86W	(6.19)

Request to retain night operations with: **“Chart NOTE: Night landing: RWY 18 operational VGSI required, remain on or above VGSI glidepath until threshold.”**

Attachments



# Federal Aviation Administration

## Memorandum

Date:

To: Manager, Production Integration Team, AJV-341

From: Manager, Flight Technologies and Procedures Division, AFS-400

Prepared by: Flight Procedure Implementation & Oversight Branch, AFS-460

Subject: Approval Request; AJV-341 Memorandum Dated 08/01/2014

Your request to utilize the visual glideslope indicator (VGSI) to mitigate unlit 20:1 visual surface penetrations, per FAA Order 8260.3B, 3.3.2(c.)(2)(b) for night circling operations to RWY 18 at Flying Cloud, Minneapolis, MN was discussed at Flight Standards' Procedure Review Board (PRB) on 09/11/2014 and is approved.

Please direct all inquiries to Danny E. Hamilton, AFS-460, at (405) 954-9359.

### Attachments

cc:

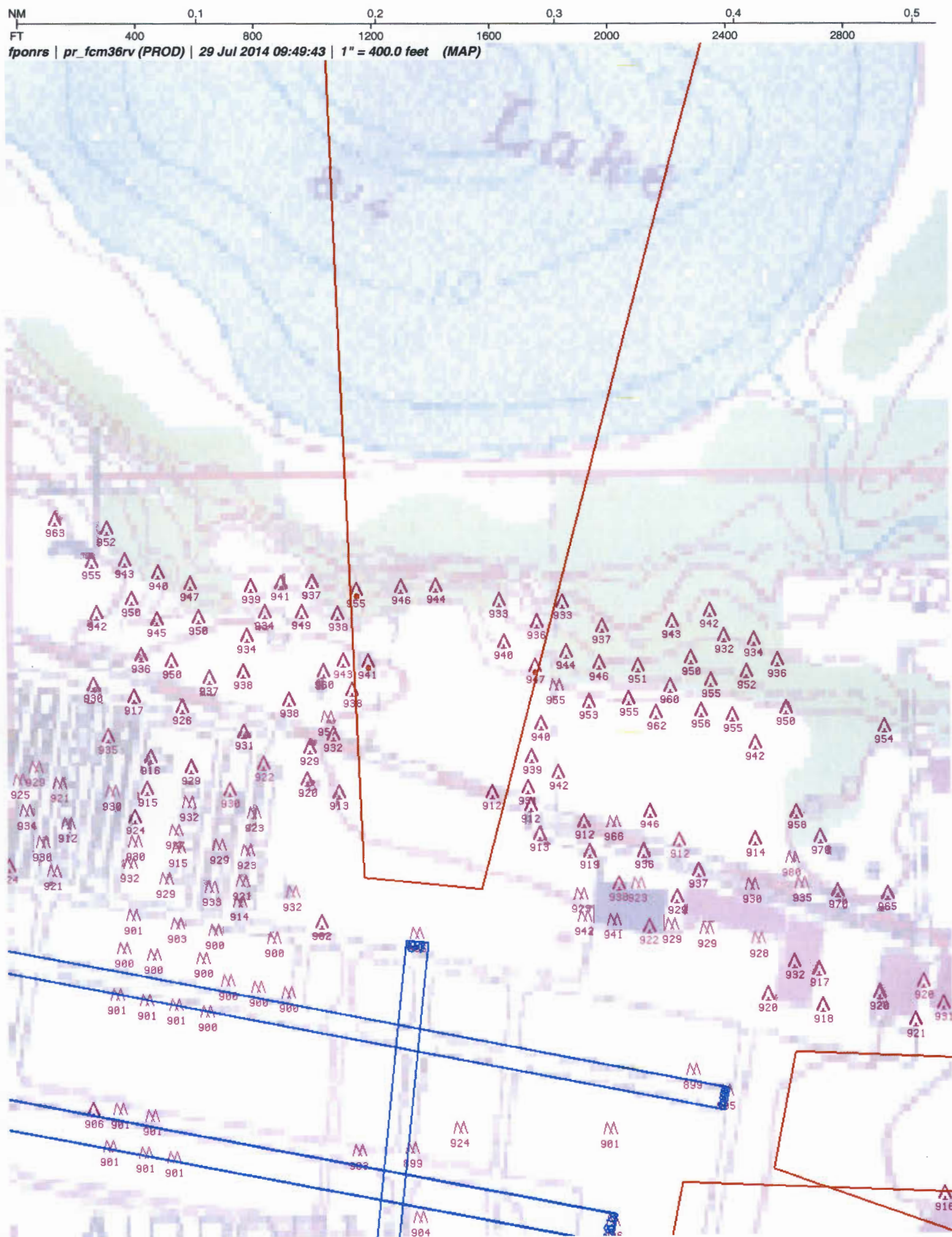
AJV-341

AGL-220

AFS-400/410/420/440/460/470

CONCURRENCES
ROUTING SYMBOL <b>AFS-420</b>
 Signed By: Richard A. Dunham III Fri Jan 23 2015 11:55:14 GMT-0600 (Central Standard Time) SIGN HERE
DATE
ROUTING SYMBOL <b>AFS-460</b>
 Signed By: Danny Hamilton Fri Jan 23 2015 11:43:14 GMT-0600 (Central Standard Time) SIGN HERE
DATE
ROUTING SYMBOL <b>AFS-410</b>
INITIALS/SIG
DATE
ROUTING SYMBOL <b>AFS-470</b>
 Signed By: Mark Steinbicker Fri Jan 30 2015 10:14:07 GMT-0500 (Eastern Standard Time) SIGN HERE
DATE
ROUTING SYMBOL <b>AFS-400</b>
 Signed By: Gary L. Powell Tue Feb 03 2015 10:53:50 GMT-0500 (Eastern Standard Time) SIGN HERE
DATE
ROUTING SYMBOL
INITIALS/SIG
DATE
ROUTING SYMBOL
INITIALS/SIG
DATE
ROUTING SYMBOL
INITIALS/SIG
DATE









Flying Cloud Airport (KFCM)  
VGSI Mitigation Request – Runway 18  
July 17, 2014

When procedure developers discover unlit obstacle penetrations to the 20:1 visual surface underlying instrument approaches, the affected procedure(s) will be “NA at night”. If the unlit penetration(s) cannot be removed, reduced in height, or lighted, a properly sited, certified and maintained VGSI could be used to mitigate the effects of the unlit obstacles, *if* approved by FAA Flight Standards Division, AFS-400.

Airport Managers/sponsors may request approval by completing and signing the following questionnaire: (for questions reference siting standards/maintenance/etc, contact your local tech ops representative, if equipment is FAA owned.)

1. Does the airport desire to retain/establish night minimums? Yes
2. To what runways are you requesting VGSI mitigation? Runway 18 via PAPI
3. Who is the owner of the VGSI equipment? Metropolitan Airports Commission
4. Does your VGSI equipment meet siting standards IAW FAA JO 6850.2B? Yes
5. Has your VGSI equipment been commissioned and does it meet the current tolerance IAW FAAO 8200.1B, Ch 7? Yes. Commission Report for Inspection dated 06/03/14 attached.
6. Is/are the VGSI under a current Recurring Maintenance program IAW AC 150/5340-26B, para 5.7? (describe inspection/maintenance plan) Yes. The MAC maintenance and electrical staff perform the inspection checks and necessary maintenance.
7. Is/are the VGSI Obstacle Clearance Surface(s) (OCS) clear? Yes
8. Do the VGSI angles/TCHs meet IFR operation requirements for the intended use of the applicable runway(s)? (IAW FAAO 6850.2, AC 150/5300-13A and FAAO 8260.3) Yes
9. Does your VGSI fall within the appropriate Wheel Height Group TCH ranges? Yes, WHG 1
10. If the unlit penetration(s) cannot be removed/reduced in height/lighted, explain why. The trees noted as IAP Visual Surface (20:1) penetrations cannot be removed as they are part of a protected view-shed surrounding Staring Lake Park, Eden Prairie, MN. Additionally, the trees are not all under the control of the Sponsor. The maximum number of trees in this area were removed as part of the 2014 Runway 18-36 Reconstruction as part of approved project environmental requirements; the remaining trees cannot be removed.

11. Is there a plan to remove/reduce in height/light the unlit penetration(s) and, if so, what is the plan? There are no additional mitigation plans, see Response 10.
12. Please provide a copy of your VGSI(s) commissioning report(s). Report is attached.

Signed,

A handwritten signature in black ink, appearing to read "Joe Harris", written in a cursive style.

Joe Harris  
Airport Manager – Flying Cloud Airport  
Metropolitan Airports Commission  
6040 28<sup>th</sup> Avenue South  
Minneapolis, MN 55450



# FLIGHT INSPECTION REPORT

NONDIRECTIONAL BEACON, DIRECTION FINDING,  
VISUAL AIDS, COMMUNICATIONS

## 1. FLIGHT INSPECTION REPORT HEADER

IDENT	OWNER	STATE	CTRY	REGION	INSPECTION DATE(S)
KFCM18	S	MN	US	AGL	06/03/14
LOCATION					INSP TYPE
MINNEAPOLIS					C

## 2. CREW INFORMATION

PIC	SIC	MS	A/C NO
VN003	VN066	VN292	N76
ACM			FIFO
			BTL

## 3. FACILITY INFORMATION

DIRECTION FINDING		NDB		FACILITY STATUS	Unrestricted
COMMUNICATIONS		NDB/DME		SIAP(s) VERIFIED	
VISUAL AIDS	Inspected				

## 4. NOTAMs

## 5. REMARKS

B-05-185-14 , Complete Sat, Box 3=3.33, Box 2=3.69, Angle 3.50  
OWNER: FLYING CLOUD METROPOLITAN AIRPORT COMMISSION

## 6. FLIGHT INSPECTION DATA

### A. NONDIRECTIONAL BEACON

RADIO CLASS CODE		IDENTIFICATION		INTERFERENCE		VOICE	
FREQUENCY		COVERAGE		OSCILLATIONS		BRG ACCURACY	
DME CHANNEL		STA PASSAGE		STANDBY EQUIP.		STANDBY POWER	

### B. DIRECTION FINDING

### STATION PASSAGE

### STANDBY POWER

CHECKPOINT	AIRCRAFT ALTITUDE	AIRCRAFT DISTANCE	BEARING			FREQUENCY USED
			AIRCRAFT	DF	ERROR	

### C. VISUAL AIDS

### FACILITY INSPECTED

ALS ☐

REIL ☐

VASI ☐

PAPI ☒

OTHER\* ☐

RUNWAY(S) SERVED	18	INTENSITY	Sat	SEQUENCE FLASHERS		FOCUS AND ADJUST.	Sat	RUNWAY LIGHTS	
G.S. ANGLE 3.50/3.50	Sat	ANGULAR COVERAGE	Sat	OBST. CLEAR. (VGS)	Sat	COINC. (PAR/ILS/MLS)		RADIO CTRL SYST.	Sat

### D. COMMUNICATIONS

APPROACH CONTROL	<input type="checkbox"/>	FSS	<input type="checkbox"/>	TOWER	<input type="checkbox"/>	CENTER	<input type="checkbox"/>	OTHER*	<input type="checkbox"/>	P/F	<input type="checkbox"/>	CS/T	<input type="checkbox"/>
FREQUENCY USED		PRIMARY		SECONDARY		VOICE QUALITY		COVERAGE		STANDBY POWER			

\* Remarks are required for fields marked with an asterisk

## Airport Details for KFCM - WORKING

Chart Date: 12/11/2014

FLYING CLOUD

MINNEAPOLIS

AL #: 5094

State:	MINNESOTA	Magnetic Variation/Year:	E03/1985	Weather Station:	YES
Country:	United States	Site Nbr:	10827	Control Tower:	YES
Category:	AERODROME ONLY	Data Source:	THIRD_PARTY 03/21/2014	THIRD_PARTY	
FAR Part 139:	NO	Owner:	STATE	Use:	CIVIL
				Military Type:	

Coordinates	Office	Local Auto Weather
Latitude: N 44° 49' 39.0000"	Flight Inspection: BTL	Weather Source: ASOS
Longitude: W 093° 27' 30.9000"	Procedure Development: 120	Type: 3
Field Elevation: 906.3	Region Code: GL	Frequency: 124.900
Ellipsoid Elevation: 818.1 S	Service Area: CNTL	Service A: Y
Horizontal Datum: NAD83	OCC Code: MOCC	
Vertical Datum: NAVD88	International: NO	

### CONTACTS

Contact Role	Last Name	First Name	Phone Number	E-mail	Remark
OWNER			(612)726-8100		

### ALTIMETERS

Type	Primary	Airport ID	Field Alt Source	Latitude	Longitude	Operational Timing
L	YES	KFCM	ASOS	N 44° 49' 39.0200"	W 093° 27' 30.8500"	FULL-TIME
R	NO	KMSP	ASOS	N 44° 52' 55.1000"	W 093° 13' 18.4000"	FULL-TIME

### ALTIMETER COMMENTS

### RUNWAYS

10L (W) 28R (W) 10R (W) 28L (W) 18 (W) 36 (W)



Rpt Date: 17:00:05 07/25/2014

Rpt User: dso

## RUNWAY DETAIL

## Landing Strip

Chart Date: 12/11/2014  
Surface: ASPH GOODPublication Status: W  
Width: 75Pseudo Rwy:  
Physical Length: 3898

## Rwy Number: 10L

Use Category: RUNWAY ONLY

Chart Date: 12/11/2014 Pub. Status: W

Data Source: THIRD\_PARTY 03/21/2014

Markings: NPI-G

## Threshold

Latitude: N 44° 49' 46.8023"  
Longitude: W 093° 27' 54.2094"  
Elevation: 906.1  
Ellipsoid Elev: 818.0 S  
Ellipsoid Elev Model: NAVD88  
Horz. Datum: NAD83  
Vert. Datum: NAVD88

## Displaced Threshold

Latitude:  
Longitude:  
Elevation:  
Ellipsoid Elev:  
Ellipsoid Elev Model:  
Horz. Datum:  
Vert. Datum:Landing Length: 3898  
FI RWY Length: 3898  
FI RWY Height: 899.3  
Tdz Elevation: 906.3  
True Bearing: 101.005  
Ft Disp Th:  
Gradient: -0.2%

RVRTouchdown:

MidPoint:

Rollout:

Rail: NO

OIS Data Source: PIR 06/01/2007 THIRD\_PARTY

Assoc. Fac.:

## KFCM10L

## VGSI Lights

VGSI Lights Type: PAPI-4L  
Owner: STATE  
Pilot Cntl Freq: 119.150  
Th Cross Ht: 39.4  
High Angle:  
Com. Date: 07/09/2009  
Com. Angle: 3.00  
DWB Elev:  
DWB Thres:  
Ref Pt Lat: N 44° 49' 45.3630"  
Ref Pt Long: W 093° 27' 43.8080"  
Ref Pt Elev: 904.5  
Ref Pt Thres: 764  
Height Group:

## Lights

Config	Len	Owner	Mil Type	Com Dt	Pilot Cntrl
MIRL		STATE		09/12/2012	119.150

## Rwy Number: 28R

Use Category: RUNWAY ONLY

Chart Date: 12/11/2014 Pub. Status: W

Data Source: THIRD\_PARTY 03/21/2014

Markings: NPI-G

## Threshold

Latitude: N 44° 49' 39.4510"  
Longitude: W 093° 27' 01.1161"  
Elevation: 899.3  
Ellipsoid Elev: 811.0 E  
Ellipsoid Elev Model: NAVD88  
Horz. Datum: NAD83  
Vert. Datum: NAVD88

## Displaced Threshold

Latitude:  
Longitude:  
Elevation:  
Ellipsoid Elev:  
Ellipsoid Elev Model:  
Horz. Datum:  
Vert. Datum:Landing Length: 3898  
FI RWY Length: 3898  
FI RWY Height: 906.1  
Tdz Elevation: 904.1  
True Bearing: 281.016  
Ft Disp Th:  
Gradient: 0.2%

RVRTouchdown:

MidPoint:

Rollout:

Rail: NO

OIS Data Source: ANALPV 09/12/2007 THIRD\_PARTY

Assoc. Fac.:

## KFCM28R

## VGSI Lights

VGSI Lights Type: PAPI-4L  
Owner: STATE  
Pilot Cntl Freq: 119.150  
Th Cross Ht: 37.6  
High Angle:  
Com. Date: 07/10/2009  
Com. Angle: 3.00  
DWB Elev:  
DWB Thres:  
Ref Pt Lat: N 44° 49' 40.7630"  
Ref Pt Long: W 093° 27' 10.5840"  
Ref Pt Elev: 899.3  
Ref Pt Thres: 695  
Height Group:

## Lights

Config	Len	Owner	Mil Type	Com Dt	Pilot Cntrl
MIRL		STATE		09/12/2012	119.150

## RUNWAY LANDING STRIP COMMENTS

## RUNWAY 10L COMMENTS

## RUNWAY 28R COMMENTS

## RUNWAY DETAIL

## Landing Strip

Chart Date: 12/11/2014  
Surface: ASPH GOODPublication Status: W  
Width: 100Pseudo Rwy:  
Physical Length: 5000

## Rwy Number: 10R

Use Category: RUNWAY ONLY

Chart Date: 12/11/2014 Pub. Status: W

Data Source: THIRD\_PARTY 03/21/2014

Markings: PIR-G

## Threshold

Latitude: N 44° 49' 44.5891"  
Longitude: W 093° 28' 14.5509"  
Elevation: 896.3  
Ellipsoid Elev: 808.1 S  
Ellipsoid Elev Model: NAVD88  
Horz. Datum: NAD83  
Vert. Datum: NAVD88

## Displaced Threshold

Latitude:  
Longitude:  
Elevation:  
Ellipsoid Elev:  
Ellipsoid Elev Model:  
Horz. Datum:  
Vert. Datum:

## KFCM10R

## VGSI Lights

VGSI Lights Type: PAPI-4L  
Owner: NTL  
Pilot Cntl Freq: 119.150  
Th Cross Ht: 41.6  
High Angle:  
Com. Date: 02/10/2010  
Com. Angle: 3.00  
DWB Elev:  
DWB Thres:  
Ref Pt Lat: N 44° 49' 43.2690"  
Ref Pt Long: W 093° 28' 05.0170"  
Ref Pt Elev: 901.5  
Ref Pt Thres: 700  
Height Group:

## Lights

Config	Len	Owner	Mil Type	Com Dt	Pilot Cntrl
MALSR		NTL		01/02/1981	119.150
HIRL		STATE		09/12/2012	119.150

## Rwy Number: 28L

Use Category: RUNWAY ONLY

Chart Date: 12/11/2014 Pub. Status: W

Data Source: THIRD\_PARTY 03/21/2014

Markings: NPI-G

## Threshold

Latitude: N 44° 49' 35.1577"  
Longitude: W 093° 27' 06.4559"  
Elevation: 898.3  
Ellipsoid Elev: 810.1 S  
Ellipsoid Elev Model: NAVD88  
Horz. Datum: NAD83  
Vert. Datum: NAVD88

## Displaced Threshold

Latitude:  
Longitude:  
Elevation:  
Ellipsoid Elev:  
Ellipsoid Elev Model:  
Horz. Datum:  
Vert. Datum:

## KFCM28L

## VGSI Lights

VGSI Lights Type: PAPI-4L  
Owner: NTL  
Pilot Cntl Freq: 119.150  
Th Cross Ht: 43.8  
High Angle:  
Com. Date: 01/06/2010  
Com. Angle: 3.00  
DWB Elev:  
DWB Thres:  
Ref Pt Lat: N 44° 49' 36.7600"  
Ref Pt Long: W 093° 27' 18.0180"  
Ref Pt Elev: 900.5  
Ref Pt Thres: 849  
Height Group:

## Lights

Config	Len	Owner	Mil Type	Com Dt	Pilot Cntrl
HIRL		STATE		09/12/2012	119.150
REIL		STATE		09/12/2012	119.150



Rpt Date: 17:00:05 07/25/2014

Rpt User: dso

Landing Length: 5000  
 FI RWY Length: 5000  
 FI RWY Height: 898.3  
 Tdz Elevation: 906.3  
 True Bearing: 101.007  
 Ft Disp Th:  
 Gradient: 0.0%  
 RVRTouchdown:  
 MidPoint:  
 Rollout:  
 Rail: YES  
 OIS Data Source: ANAPC 06/01/2007 THIRD\_PARTY  
 Assoc. Fac.: FCM ILS (W)

Landing Length: 5000  
 FI RWY Length: 5000  
 FI RWY Height: 896.3  
 Tdz Elevation: 905.8  
 True Bearing: 281.02  
 Ft Disp Th:  
 Gradient: 0.0%  
 RVRTouchdown:  
 MidPoint:  
 Rollout:  
 Rail: NO  
 OIS Data Source: PIR 06/01/2007 THIRD\_PARTY  
 Assoc. Fac.:

## RUNWAY LANDING STRIP COMMENTS

## RUNWAY 10R COMMENTS

## RUNWAY 28L COMMENTS

## RUNWAY DETAIL

## Landing Strip

Chart Date: 12/11/2014  
 Surface: ASPH GOOD

Publication Status: W  
 Width: 75

Pseudo Rwy:  
 Physical Length: 2690

## Rwy Number: 18

Use Category: RUNWAY ONLY

Chart Date: 12/11/2014 Pub. Status: W

Data Source: THIRD\_PARTY 03/21/2014

Markings: NPI-G

## Threshold

Latitude: N 44° 49' 44.7090"  
 Longitude: W 093° 27' 15.6091"  
 Elevation: 899.1  
 Ellipsoid Elev: 810.9 S  
 Ellipsoid Elev Model: NAVD88  
 Horz. Datum: NAD83  
 Vert. Datum: NAVD88

## Displaced Threshold

Latitude:  
 Longitude:  
 Elevation:  
 Ellipsoid Elev:  
 Ellipsoid Elev Model:  
 Horz. Datum:  
 Vert. Datum:

## KFCM18

## VGSI Lights

VGSI Lights Type: PAPI-4L  
 Owner: STATE  
 Pilot Cntl Freq: 119.150  
 Th Cross Ht: 45.0  
 High Angle:  
 Com. Date: 06/03/2014  
 Com. Angle: 3.50  
 DWB Elev:  
 DWB Thres:  
 Ref Pt Lat: N 44° 49' 37.2950"  
 Ref Pt Long: W 093° 27' 16.7060"  
 Ref Pt Elev: 900.3  
 Ref Pt Thres: 755  
 Height Group:

## Lights

Config	Len	Owner	Mil Type	Com Dt	Pilot Cntrl
REIL		STATE		09/12/2012	119.150
MIRL		STATE		05/03/2012	119.150

Landing Length: 2690  
 FI RWY Length: 2690  
 FI RWY Height: 905.1  
 Tdz Elevation: 905.1  
 True Bearing: 186.011  
 Ft Disp Th:  
 Gradient: 0.2%  
 RVRTouchdown:  
 MidPoint:  
 Rollout:  
 Rail: NO  
 OIS Data Source: ANALPV 03/21/2014 THIRD\_PARTY  
 Assoc. Fac.:

## Rwy Number: 36

Use Category: RUNWAY ONLY

Chart Date: 12/11/2014 Pub. Status: W

Data Source: THIRD\_PARTY 03/21/2014

Markings: NPI-G

## Threshold

Latitude: N 44° 49' 18.2928"  
 Longitude: W 093° 27' 19.5176"  
 Elevation: 905.1  
 Ellipsoid Elev: 816.8 S  
 Ellipsoid Elev Model: NAVD88  
 Horz. Datum: NAD83  
 Vert. Datum: NAVD88

## Displaced Threshold

Latitude:  
 Longitude:  
 Elevation:  
 Ellipsoid Elev:  
 Ellipsoid Elev Model:  
 Horz. Datum:  
 Vert. Datum:

## KFCM36

## VGSI Lights

VGSI Lights Type: PAPI-4L  
 Owner: STATE  
 Pilot Cntl Freq: 119.150  
 Th Cross Ht: 27.0  
 High Angle:  
 Com. Date: 06/03/2014  
 Com. Angle: 3.00  
 DWB Elev:  
 DWB Thres:  
 Ref Pt Lat: N 44° 49' 23.6840"  
 Ref Pt Long: W 093° 27' 18.7200"  
 Ref Pt Elev: 903.8  
 Ref Pt Thres: 549  
 Height Group:

## Lights

Config	Len	Owner	Mil Type	Com Dt	Pilot Cntrl
REIL		STATE		09/12/2012	119.150
MIRL		STATE		05/03/2012	119.150

Landing Length: 2690  
 FI RWY Length: 2690  
 FI RWY Height: 899.1  
 Tdz Elevation: 905.1  
 True Bearing: 6.011  
 Ft Disp Th:  
 Gradient: -0.2%  
 RVRTouchdown:  
 MidPoint:  
 Rollout:  
 Rail: NO  
 OIS Data Source: ANALPV 03/21/2014 THIRD\_PARTY  
 Assoc. Fac.:

## RUNWAY LANDING STRIP COMMENTS

## RUNWAY 18 COMMENTS

## RUNWAY 36 COMMENTS

## COMMENTS

Topic	Priority	Date	Remark
NOTE	1	12/18/2003	ASOS BROADCAST OVER ATIS, 124.9. 952-941-4156. PER CHI FPO 11/6/03 LIST, ASOS DOES HAVE SERVICE A
OWNER	2	09/29/2009	OWNER: FLYING CLOUD METROPOLITAN AIRPORT
LIGHTS	3	02/10/2010	RWY 10R/28L: VGSI'S ARE PCL AND RWY 10R MALSR IS FAA OWNED (NOT STATE), PER FLIGHT INSPECTION JEFF RANDALL.

4/7/2009 RWY 10L/28R: VGSI DATA ADDED TO BOTH ENDS PER VGSI DATA SHEETS DATED 2/27/2009 AND NFDD 197 DATED 10/14/2009.

## COMMENTS

			RWY 10L/28R: PCL ADDED TO RWY 10L VGSI AND RWY 28R VGSI IS ON LOCAL CONTROL, PER FLIGHT INSPECTION.
			RWY 18/36: PCL REMOVED FROM RWY 36 VGSI; OPERATIONAL 24 HRS, PER FLIGHT INSPECTION.
NOTE	4	02/18/2010	ALL PCL FREQ'S CHANGED FROM 118.1 TO 119.15 PER FLIGHT INSPECTION AND NFDD 038 DATED 2/26/2010.
LIGHTS	5	09/27/2011	VGSI DATA ADDED TO RWY 18 AND RWY 36 PER VGSI DATA SHEETS DTD 9/28/2011.
LIGHTS	6	04/18/2013	RWY 18/36: VGSI DATA ADDED PER VGSI DATA SHEETS DTD 4/1/2013; POC TELE: 651-765-2957
			8/12/2013: RWY 18/36 VGSI DATA UPDATED PER MODIFIED VGSI DATA SHEETS DTD 8/7/2013 AND RWY 36 PER NFDD 025 DTD 2/6/2014.
			5/22/2014: RWY 18/36 VGSI DATA MODIFIED PER VGSI DATA SHEETS DTD 5/20/2014 AND PER NFDD 131 DTD 7/9/2014.
SURVEY	7	06/17/2014	ARP HEADER, RWY 10L/24R, RWY 10R/24L AND RWY 18/36: 3RD PARTY SURVEY DTD 3/21/2014; THIS SURVEY HAS NOT BEEN NFDD'D.
			THE FOLLOWING NAVAIDS WERE INCLUDED IN THIS SURVEY:
			FCM VDME
			FCM ILS
RESTRICTION	8	07/03/2014	RWY 36 PAPI UNUSABLE 6 DEGS LEFT OF CENTERLINE - 6/3/2014

## SIAPS

Nav Ident	Nav Type	Description	FAS	Amendment	Type
		RNAV (GPS) RWY 36	1002 / TOWER / N44°47'58.11" / W093°27'24.56"	2	CIVIL
			1019 / TREE / N44°49'08.41" / W093°27'00.66"		
FCM	ILS	COPTER ILS OR LOC RWY 10R	1029 / TREE / N44°49'46.00" / W093°30'15.00"	1	CIVIL
		RNAV (GPS) RWY 10L	961 / TREE / N44°49'29.55" / W093°29'08.46"	1A	CIVIL
FCM	VOR_DME	VOR/DME RWY 36	1019 / TREE / N44°49'08.41" / W093°27'00.66"	1	CIVIL
FCM	ILS	ILS OR LOC RWY 10R	1029 / TREE / N44°49'46.00" / W093°30'15.00"	3A	CIVIL
		RNAV (GPS) RWY 28R	988 / ANT AND APBN ON OL ATCT / N44°49'18.21" / W093°27'29.99"	2B	CIVIL
		RNAV (GPS) RWY 28L	1009 / TREE / N44°49'48.40" / W093°26'57.90"	2	CIVIL
FCM	VOR_DME	VOR RWY 10R	1029 / TREE / N44°49'46.00" / W093°30'15.00"	9	CIVIL
		RNAV (GPS) RWY 10R	961 / TREE / N44°49'29.55" / W093°29'08.46"	ORG	CIVIL
			1029 / TREE / N44°49'46.00" / W093°30'15.00"		

## ASSOCIATED MONITORS

## ASSOCIATED DGPS

## VGSI MITIGATION PACKAGE CHECKLIST

### Circling Procedure

1. Cover letter template ☒
2. VAAR Area Color Map (with Quad lightened 50%) Scaled to 1=400  
Coordinate with lead if different scale is required. ☒
3. VAAR Area Color Map (without Quad) Scaled to 1=400  
Coordinate with lead if different scale is required. ☒
4. 20:1 Obstacle Mitigation Checklist (Must be complete and signed) ☒
5. Current Procedure Graphic or FIG for procedure awaiting charting ☐ *N/A*
6. Current Published Procedure -3/5/7 and -10s if applicable ☐ *N/A*
7. Pending Procedure -3/5/7, -10s, -9 and FC maps ☐ *N/A*
8. Satisfactory Flight Check PC ☐ *N/A*
9. AIRNV Data Sheet with VGSI commissioning date ☒
10. Flight check VGSI commissioning Report if AIRNV has no date ☒



# Federal Aviation Administration Categorical Exclusion Declaration

**Date:** 06/03/21

**IFP:** Maxfield, Kissy (kissy.maxfield@faa.gov)

**Airport Contact:** -

**Request ID:** KFCM\_21428

**Single or Multiple Procedure:** Multiple

**Procedure Name(s):** ILS OR LOC RWY 10R RNAV GPS RWY 28R RNAV GPS RWY 10L RNAV GPS RWY 28L RNAV GPS RWY 10R RNAV GPS RWY 36 VOR/DME RWY 36

**Procedure Request Description:**

Flying Cloud Airport (KFCM) in Eden Prairie, Minnesota, is updating procedures in order to clear a Notice to Airmen (NOTAM) and allow night arrival operations to Runway (RWY) 18/36 when the Visual Glideslope Indicator (VGSI) is operational. The VGSI is a ground device that uses lights to assist the pilot in landing aircraft at an airport. The NOTAM currently allows night arrivals to land on Runway (RWY) 18/36 even though aircraft arrival procedures state that 'Night time arrivals are not allowed (NA) for RWY 18/36'. The aircraft procedures would be changed from "Night time arrivals NA for RWY 18/36" to "Aircraft can land on RWY 18/36 at night if the VGSI is operational". The airport would continue to comply with the Noise Abatement Plan which restricts nighttime operations unless they meet the criteria outlined in the Plan.

This update would amend the Area Navigation (RNAV) Global Positioning System (GPS) procedures, the Instrument Landing System (ILS) or Localizer (LOC) procedure, the Very High Frequency (VHF) Omni-Directional Range (VOR)/Distance Measuring Equipment (DME) procedure, with no change to the ground path for any procedure. This would include the following procedures: RNAV (GPS) RWY 28R; RNAV (GPS) RWY 10L; RNAV (GPS) RWY 28L; RNAV (GPS) RWY 10R; RNAV (GPS) RWY 36; and VOR/DME RWY 36. For the ILS OR LOC RWY 10R procedure, there would be no change to the ground path, but DME would be required for GOBKE fix minimums.

**Declaration of Exclusion:**

The FAA has reviewed the above referenced proposed action and it has been determined, by the undersigned, to be categorically excluded from further environmental documentation according to FAA Order 1050.1, "Environmental Impacts: Policies and Procedures." The implementation of this action will not result in any extraordinary circumstances in accordance with FAA Order 1050.1.

**Basis for this Determination:**

This review was conducted in accordance with policies and procedures in Department of Transportation Order 5610.1, "Procedures for Considering Environmental Impacts" and FAA Order 1050.1.

**The applicable Categorical Exclusion is:**

**5-6.5.k:** Publication of existing air traffic control procedures that do not essentially change existing tracks, create new tracks, change altitude, or change concentration of aircraft on these tracks. (ATO, AVS)

**The above flight procedure has been developed within the accepted parameters.**

Concurrence/Reviewed By: William Douglas Brewer  Digitally signed by William Douglas Brewer  
Date: 2021.06.03 12:56:58 -05'00' Date: \_\_\_\_\_

Title: William Brewer, Environmental Protection Specialist  
ATO Central Service Area, Operations Support Group, AJV-C25

Approved By: CHRISTOPHER L SOUTHERLAND  Digitally signed by CHRISTOPHER L SOUTHERLAND  
Date: 2021.06.03 14:33:22 -05'00' Date: \_\_\_\_\_

Title: Christopher L. Southerland, Group Manager  
ATO Central Service Area, Operations Support Group, AJV-C2