

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.29

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.
 Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<u>AIRPORT</u> WATERLOO RGNL	<u>AIRPORT ID</u> KALO	<u>PROCEDURE NAME</u> ILS OR LOC RWY 12	<u>ORIGINAL/AMENDMENT</u> 10A	<u>CITY</u> WATERLOO	<u>STATE</u> IA
<u>AIRPORT ELEVATION</u> 873	<u>TDZE</u> 873	<u>SUPERSEDED</u> ILS OR LOC RWY 12	<u>ORIGINAL/AMENDMENT</u> 10	<u>DATED</u> 09/13/2018	<u>MAG VAR</u> 0E
<u>FACILITY</u> I-ALO	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 25 APRIL 2019	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2020

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
ALO VOR/DME		EYUCE/I-ALO 14.00 DME/RADAR					308.22	13.09	3400
MCW VOR/DME	IAF	EYUCE/I-ALO 14.00 DME/RADAR	NOPT				121.91	39.18	3400
EYUCE/I-ALO 14.00 DME/RADAR	IF/IAF	CULCA/I-ALO 7.59 DME/RADAR					127.78	6.40 (I-ALO)	2800

MISSED APPROACH

MAP:

ILS: DA
 LOC: 5.88 NM AFTER CULCA/I-ALO 7.59 DME/RADAR OR AT I-ALO 1.72 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1400 THEN CLIMBING LEFT TURN TO 3300 ON ALO VOR/DME R-096 TO DEWAR INT/ALO VOR/DME 10.76 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 1400 THEN CLIMBING RIGHT TURN TO 3300 ON CID VOR/DME R-321 TO LYERS/CID 36.85 DME AND HOLD. (DME REQUIRED)

PROFILE:

- PT **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
- HOLD NW EYUCE, RT, 127.78 INBOUND, 3400 FT. IN LIEU OF PT (IF/IAF), MAX 5000.
- FAC:** 127.78 **FAF:** CULCA/I-ALO 7.59 DME/RADAR **DIST FAF TO MAP:** 5.88 **DIST FAF TO THLD:** 5.88
- MIN ALT:** EYUCE/I-ALO 14.00 DME/RADAR 3400, CULCA/I-ALO 7.59 DME/RADAR 2800, ZESOP/I-ALO 3.32 DME 1420*
- DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **GS ANT:** 1059
- MIN GS INCPT:** 2800 **GS ALT AT FAF :** CULCA/I-ALO 7.59 DME/RADAR 2800 **OM:** **MM:** **IM:**
- GP ANGLE:** 3.00 **34:1:** **20:1:** **TCH:** 55.0
- MSA FROM:** ALO VOR/DME 360-090 3200, 090-180 4000, 180-360 2600

EQUIPMENT REQUIREMENTS NOTES:

DME OR RADAR REQUIRED.



NOTES:

CHART PROFILE NOTE: USE I-ALO DME WHEN ON THE LOCALIZER COURSE.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON ALO VOR/DME AIRWAY RADIALS 267 CW 347.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON MCW VOR/DME AIRWAY RADIALS 075 CW 100.
CHART NOTE: **RVR 1800 AUTHORIZED WITH THE USE OF FD OR AP OR HUD TO DA.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 12 ZESOP FIX MINIMUMS CAT C/D VISIBILITY TO RVR 5500.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART IN PLANVIEW: LYERS/CID 36.85 DME
CHART VDP AT 2.69 DME*
DISTANCE VDP TO THLD 0.97 NM
* LOC ONLY
CHART FAS OBST: 990 TREE 423441N/0922532W.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD SE LYERS/CID 36.85 DME, LT, 320.94 INBOUND.
HOLD E, RT, 276.49 INBOUND

MINIMUMS:
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ ILS: STANDARD - NA WHEN CONTROL TOWER CLOSED.; LOC: STANDARD - CAT D 800-2 1/4, NA WHEN CONTROL TOWER CLOSED.

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
S-ILS 12**	1073	2400	200	1073	2400	200	1073	2400	200	1073	2400	200			
S-LOC 12	1420	2400	547	1420	2400	547	1420	6000	547	1420	6000	547			
CIRCLING	1420	1	547	1420	1	547	1480	1 3/4	607	1600	2 1/4	727			
ZESOP FIX MINIMUMS (DME REQUIRED)															
S-LOC 12	1240	2400	367	1240	2400	367	1240	3500	367	1240	3500	367			
CIRCLING	1360	1	487	1400	1	527	1480	1 3/4	607	1600	2 1/4	727			

CHANGES - REASONS

1. CHANGED ALT MISS FROM "CLIMB TO 1400 THEN CLIMBING RIGHT TURN TO 3300 ON CID VOR/DME R-321 TO LYERS INT/CID 36.85 DME AND HOLD" TO "CLIMB TO 1400 THEN CLIMBING RIGHT TURN TO 3300 ON CID VOR/DME R-321 TO LYERS CID 36.85 DME AND HOLD (DME REQUIRED)" - REMOVED CROSSING RADIAL FROM TNU VOR/DME DUE TO MRA.
2. UPDATED ALL REFERENCES OF LYERS FIX FROM "LYERS INT/CID 36.85 DME" TO "LYERS/CID 36.85 DME" - REMOVED CROSSING RADIAL FROM TNU VOR/DME DUE TO MRA.



COORDINATED WITH:

A4A ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** ZAU ARTCC, ALO APP CON, ALO TOWER, AMGR

FLIGHT CHECKED BY

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, OCTOBER 3, 2018, SUBJECT: FLIGHT INSPECTION REVIEW NOT REQUIRED

Digitally signed by
WARDELL HENNING

OFFICE

DATE

DEVELOPED BY

DONALD H. LANIER (JACOB MAXFIELD)

Digitally signed by

WARDELL HENNING

Dec 11, 2018

OFFICE

AJV-5431

DATE

11/16/2018

APPROVED BY

PATRICK MULQUEEN

Digitally signed by

WARDELL HENNING

Dec 11, 2018

OFFICE

AJV-5430

DATE

TITLE

MANAGER

Dec 11, 2018

QUALITY
41
CHECKED