

**FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
VOR STANDARD INSTRUMENT APPROACH PROCEDURE  
TITLE 14 CFR PART 97.23**

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> VOR RWY 18	<u>ORIGINAL/AMENDMENT</u> 10	<u>CITY</u> WATERLOO	<u>STATE</u> IA
<u>AIRPORT ELEVATION</u> 873	<u>TDZE</u> 871	<u>SUPERSEDED</u> VOR RWY 18	<u>ORIGINAL/AMENDMENT</u> 9	<u>DATED</u> 09/13/2018	<u>MAG VAR</u> 0E
<u>FACILITY</u> ALO	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 10 OCTOBER 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>

**MISSED APPROACH**

**MAP:**  
ALO VOR/DME

**MISSED APPROACH INSTRUCTIONS:**  
CLIMBING RIGHT TURN TO 2800 ON ALO VOR/DME R-215 TO NEVIS INT AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**

**PROFILE:**

1. PT L    **SIDE OF COURSE** 356.00    **OUTBOUND** 2600    **FT WITHIN** 10    **MILES OF** ALO VOR/DME (IAF)  
2.  
3. **FAC:** 176.00    **FAF:**    **DIST FAF TO MAP:**    **DIST FAF TO THLD:**  
4. **MIN ALT:**  
8. **MSA FROM:** ALO VOR/DME 090-180 4000, 180-360 2700, 360-090 3200

**EQUIPMENT REQUIREMENTS NOTES:**

**NOTES:**

CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.



**ADDITIONAL FLIGHT DATA:**  
CHART CIRCLING ICON.  
CHART VDP AT 2.71 DME  
DISTANCE VDP TO THLD 2.14 NM  
CHART FAS OBST: 1288 TOWER 424255N/0922604W.  
FAC CROSSES RWY C/L EXTENDED 2175 FT FROM THLD.  
HOLD SW, RT, 034.60 INBOUND

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

**ALTERNATE:** NA ☐ STANDARD - CAT D 800-2 1/4 NA WHEN LOCAL WEATHER NOT AVAILABLE.

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-18	1600	1	729	1600	1	729	1600	2	729	1600	2	729			
CIRCLING	1600	1	727	1600	1	727	1600	2	727	1600	2 1/4	727			

**CHANGES - REASONS**  
1. CHANGED PT INBOUND/OUTBOUND COURSES FROM "177.51/357.51" TO "176.00/356.00"- COURSE CHANGE DUE TO UNUSABLE NAVAID RADIAL.  
2. CHANGED FINAL COURSE FROM 177.51 TO 176.00 - COURSE CHANGE DUE TO UNUSABLE NAVAID RADIAL.  
3. CHANGED FAC CROSSING RWY EXTENDED C/L DISTANCE FROM 3000 FT TO 2175 FT-COURSE CHANGE DUE TO UNUSABLE NAVAID RADIAL.  
4. REMOVED STEPDOWN FIX AND ASSOCIATED MINUMUMS - PER FPT  
5. CHANGED CHART VDP FROM "1.90 DME/VDP TO THRE 1.34 NM" TO "2.71 DME/VDP TO THRE 2.14 NM" - REMOVED STEPDOWN FIX DUE TO COURSE CHANGE DUE TO UNUSABLE NAVAID RADIAL.  
6. REMOVED VDA - FINAL IS NOW A NO-FAF WITHOUT A STEPDOWN FIX.

**COORDINATED WITH:**  
A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZAU, WATERLOO ATCT, AMGR, ALO APP CON

<b>FLIGHT CHECKED BY</b> SHAWN D MAXWELL	<i>Digitally signed by</i> <b>DONALD H LANIER</b> Jun 11, 2019	<b>OFFICE</b> FICO	<b>DATE</b> 6/5/19	
<b>DEVELOPED BY</b> WARDELL HENNING (JANTZEN TAYLOR)	<i>Digitally signed by</i> <b>DONALD H LANIER</b> Jun 11, 2019	<b>OFFICE</b> AJV-A432	<b>DATE</b> 04/16/2019	
<b>APPROVED BY</b> LONNIE EVERHART	<i>Digitally signed by</i> <b>DONALD H LANIER</b> Jun 11, 2019	<b>OFFICE</b> AJV-A430	<b>DATE</b>	<b>TITLE</b> MANAGER

