

US Department of Transportation  
Federal Aviation Administration

## STAR - Standard Terminal Arrival

1. Bearings, headings, courses and radials are listed to the nearest hundredth (e.g. 360.00)
2. Distances are in nautical miles to nearest hundredth (e.g. 00.00)
3. Altitudes are minimum altitudes unless otherwise indicated

### (1) Transition Routes 1. SAGINAW 2. BADGER 3. GRAND RAPIDS 4. GREEN BAY 5. MUSKEGON

(a) Transition Name	(b) Transition Computer Codes	(c) From RNAV WP/ FIX/NAVAID	(d) To RNAV WP/ FIX/NAVAID	(e) Mag Course/ Distance	(f) MEA	(g) MOCA	(h) MAA	(i) Crossing Altitudes / Fixes
SAGINAW	MBS.POLAR5	MBS VOR/DME	AAMMO INT POLAR INT/DXO 40.86 DME	164.16/34.85 162.52/9.44 (DXO R-343)	4000 4000*			
BADGER	BAE.POLAR5	BAE VORTAC	ZIPPE/BAE 52.00 DME PURNY/BAE 102.15 DME MUNKY/FNT 67.14 DME BUTRR INT AAMMO POLAR	078.21/52.00 078.21/50.15 (BAE R-078) 111.04/34.17 (FNT R-291) 111.04/28.41 (FNT R-291) 111.04/35.33 (FNT R-291) 162.52/9.44 (DXO R-343)	11000 11000 11000 6000 4000 4000*			
VICTORY	VIO.POLAR5	VIO VOR/DME	BUTRR AAMMO POLAR	066.13/44.66 111.04/35.33 (FNT R-291) 162.52/9.44 (DXO R-343)	6000 4000 4000*			
GREEN BAY	GRB.POLAR5	GRB VORTAC	KKAYY/GRB 57.00 DME NOBAC/GRB 87.00 DME PURNY/GRB 118.84 DME MUNKY BUTRR AAMMO POLAR	124.49/57.00 124.49/30.00 (GRB R-124) 124.49/31.84 (GRB R-124) 111.04/34.17 (FNT R-291) 111.04/28.41 (FNT R-291) 111.04/35.33 (FNT R-291) 162.52/9.44 (DXO R-343)	15000 15000 15000 11000 6000 4000 4000*			
MUSKEGON	MKG.POLAR5	MKG VORTAC	MUNKY BUTRR AAMMO POLAR	083.21/36.01 111.04/28.41 (FNT R-291) 111.04/35.33 (FNT R-291) 162.52/9.44 (DXO R-343)	6000 6000 4000 4000*			

#### (2) Arrival Route Description:

FROM OVER POLAR INT/40.86 DME: VIA DXO R-342.52 TO SCUBI/31.00 DME (MEA 4000). THENCE...  
LANDING RUNWAY 3L/R OR 4L/R: VIA DXO R-342.52 TO TRAML/10.00 DME (MEA 3000). EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.  
LANDING RUNWAY 21L/R OR 22L/R: EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

#### (3) Procedural Data Notes:

MUNKY VERTICAL NAVIGATION PLANNING INFORMATION: EXPECT TO CROSS AT FL230.

POLAR VERTICAL NAVIGATION PLANNING INFORMATION: TURBOJETS: EXPECT TO CROSS AT 12,000 FEET. TURBOPROPS: EXPECT TO CROSS AT 11,000 FEET.

\*BELOW 5000 DME UNUSABLE, RADAR REQUIRED.

DME REQUIRED.

(4) Fixes and/or Holding Patterns: CHART HOLDING AT MUNKY, HOLD W, LT, 111.04 INBOUND. CHART HOLDING AT POLAR, HOLD N, RT, 162.52 INBOUND.

(5) Communications: DETROIT APP CON AND KDTW ATIS

(6) Arrival Name POLAR	(7) Number FIVE	(8) STAR Computer Code POLAR.POLAR5	(9) Superseded Nr. FOUR	(10) Dated 24 JULY 2014	(11) Effective Date 13 NOV 2014
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QUALITY  
CHECKED

QUALITY  
CHECKED

**(16) Continuation:****(17) Changes:**

1. CHANGED ALL REFERENCE OF GRAND RAPIDS TO VICTORY AND GRR TO VIO.

**(18) Reasons for Changes:**

1. NAME/ID CHANGED.

7/28/2014: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 06/17/2014.  
ADDED RUNWAY 4L AND 22R. CHANGED BLOCK 10 DATE FROM 29 MAY 2014 TO 24 JUL 2014

QUALITY  
CHECKED

(6) Arrival Name  
POLAR

(7) Number  
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(8) STAR Computer Code  
POLAR.POLAR5

(9) Superseded Nr.  
FOUR

(10) Dated  
24 JULY 2014

(11) Effective Date  
13 NOV 2014

### STAR (Data Record)

[illegible]

<b>(11)</b> <b>Arrival Name</b> POLAR	<b>(12)</b> <b>Number</b> FIVE	<b>(13)</b> <b>STAR Computer Code</b> POLAR.POLAR5	<b>(14)</b> <b>Superseded Nr.</b> FOUR	<b>(15)</b> <b>Dated</b> 24 JULY 2014	<b>(16)</b> <b>Effective Date</b> 13 NOV 2014
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[illegible]

(11) <b>Arrival Name</b> POLAR	(12) <b>Number</b> FIVE	(13) <b>STAR Computer Code</b> POLAR.POLAR5	(14) <b>Superseded Nr.</b> FOUR	(15) <b>Dated</b> 24 JULY 2014	(16) <b>Effective Date</b> 13 NOV 2014
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**STAR (Data Record)**

SUSAP KDTWK5GRW21L	0100012147	N42131086W083200265+0000	+0158100632000062150IIEJR1	
SUSAP KDTWK5GRW21R	0085012147	N42134185W083201012+0100	+0158000632000056200V	
SUSAP KDTWK5GRW22L	0120032147	N42135237W083205997+0000	+0159300636000060200IIDWC2	
SUSAP KDTWK5GRW22R	0100002147	N42133448W083215861+0000	+0161200642000055150IIBZB1	IJKI1

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
POLAR	FIVE	POLAR.POLAR5	FOUR	24 JULY 2014	13 NOV 2014

FAA Form 7100-3 (9/02)

US Department of Transportation Federal Aviation Administration					STAR (Data Record)							
ARINC SUMMARY - 424-18 - STAR												
ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG (TRUE)	DISTANCE	ALTITUDE	SPEED
	BAE	BAE	010		IF		FB					
	BAE	ZIPPE	020		TF		FB					
	BAE	PURNY	030		TF		FB					
	BAE	MUNKY	040		TF		FB					
	BAE	BUTRR	050		TF		FB					
	BAE	AAMMO	060		TF		FB					
	BAE	POLAR	070		TF		FB					
	GRB	GRB	010		IF		FB					
	GRB	KKAYY	020		TF		FB					
	GRB	NOBAC	030		TF		FB					
	GRB	PURNY	040		TF		FB					
	GRB	MUNKY	050		TF		FB					
	GRB	BUTRR	060		TF		FB					
	GRB	AAMMO	070		TF		FB					
	GRB	POLAR	080		TF		FB					
	MBS	MBS	010		IF		FB					
	MBS	AAMMO	020		TF		FB					
	MBS	POLAR	030		TF		FB					
	MKG	MKG	010		IF		FB					
	MKG	MUNKY	020		TF		FB					
	MKG	BUTRR	030		TF		FB					
	MKG	AAMMO	040		TF		FB					
	MKG	POLAR	050		TF		FB					
	VIO	VIO	010		IF		FB					
	VIO	BUTRR	020		TF		FB					
	VIO	AAMMO	030		TF		FB					
	VIO	POLAR	040		TF		FB					
		POLAR	010		IF		FB					
		SCUBI	020		TF		FB					
	RW03B	SCUBI	010		IF		FB					
	RW03B	TRAML	020		TF		FO					
	RW03B	TRAML	030		FM		FB		162.5 ( )			
	RW04B	SCUBI	010		IF		FB					
	RW04B	TRAML	020		TF		FO					
	RW04B	TRAML	030		FM		FB		162.5 ( )			
	RW21B	SCUBI	010		IF		FB					
	RW21B	SCUBI	020		FM		FB		162.5 ( )			
	RW22B	SCUBI	010		IF		FB					
(11) Arrival Name POLAR		(12) Number FIVE		(13) STAR Computer Code POLAR.POLAR5			(14) Superseded Nr. FOUR		(15) Dated 24 JULY 2014		(16) Effective Date 13 NOV 2014	

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POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	BAE	N430700.67	W0881703.64	N4307.011	W08817.061
	DXO	N421247.29	W0832159.99	N4212.788	W08322.000
	GRB	N443318.58	W0881141.48	N4433.310	W08811.691
	MBS	N433153.95	W0840438.28	N4331.899	W08404.638
	MKG	N431009.31	W0860221.76	N4310.155	W08602.363
	VIO	N424712.18	W0852949.45	N4247.203	W08529.824
	POLAR	N425014.67	W0834407.58	N4250.245	W08344.126
	AAMMO	N425853.38	W0834918.30	N4258.890	W08349.305
	BUTRR	N430752.39	W0843554.68	N4307.873	W08435.911
	KKAYY	N435954.58	W0870723.86	N4359.910	W08707.398
	MUNKY	N431451.92	W0851332.74	N4314.865	W08513.546
	NOBAC	N434205.42	W0863402.58	N4342.090	W08634.043
	PURNY	N432300.00	W0855900.00	N4323.000	W08559.000
	SCUBI	N424112.82	W0833844.84	N4241.214	W08338.747
	TRAML	N422157.83	W0832722.62	N4221.964	W08327.377
	ZIPPE	N431529.83	W0870655.98	N4315.497	W08706.933
	RW03L	N421228.21	W0832104.39	N4212.470	W08321.073
	RW03R	N421144.21	W0832106.49	N4211.737	W08321.108
	RW04L	N421207.82	W0832302.40	N4212.130	W08323.040
	RW04R	N421212.78	W0832213.32	N4212.213	W08322.222
	RW21L	N421310.86	W0832002.65	N4213.181	W08320.044
	RW21R	N421341.85	W0832010.12	N4213.698	W08320.169
	RW22L	N421352.37	W0832059.97	N4213.873	W08321.000
	RW22R	N421334.48	W0832158.61	N4213.575	W08321.977

  

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW03L	00636	58
	RW03R	00633	54
	RW04L	00645	55
	RW04R	00637	51
	RW21L	00632	62
	RW21R	00632	56
	RW22L	00636	60
	RW22R	00642	55

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