

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								
(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
KEELER	ELX.FAILS2	ELX VOR/DME	CRL VORTAC	091.89 & 096.67/119.18 (ELX R-092 & CRL R-277)	FL180			
			MACCS INT	100.19/14.30 (CRL R-100)	7000			
VICTORY	VIO.FAILS2	VIO VOR/DME	CRL VORTAC	119.36/100.88 (VIO R-119)	FL180			
			MACCS INT	100.19/14.30 (CRL R-100)	7000			
SALEM	SVM.FAILS2	SVM VORTAC	MACCS INT	142.07/30.96	7000			
CARLETON	CRL.FAILS2	CRL VORTAC	MACCS INT	100.19/14.30 (CRL R-100)	7000			
(2) Arrival Route Description:								
FROM OVER MACCS INT, ON CRL VORTAC R-100 TO AZTRO INT (MEA 7000) (CROSS AZTRO AT OR BELOW 14,000), THEN ON JFN VOR/DME R-284 TO FAILS INT (MEA 5000). FROM OVER FAILS INT ON HEADING 180.00. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.								
(3) Procedural Data Notes:								
<u>FAILS VERTICAL NAVIGATION PLANNING INFORMATION:</u> TURBOJETS: EXPECT TO CLEARANCE CROSS AT 7000. PROPS: EXPECT CLEARANCE TO CROSS AT 5000. NOTE: RADAR REQUIRED.								
(4) Fixes and/or Holding Patterns: CHART HOLDING AT: FAILS INT, HOLD W, LT, 104.00 INBOUND.								
(5) Communications:								
CLEVELAND APPROACH CONTROL, BURKE LAKEFRONT ATIS.								
(6) Arrival Name FAILS	(7) Number TWO	(8) STAR Computer Code MACCS.FAILS2	(9) Superseded Nr. ONE	(10) Dated 20 DEC 2007	(11) Effective Date 13 NOV 2014			

FAA Form 7100-4 (7/02)

 QUALITY
3
CHECKED

FAA Form 7100-4 (7/02)

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

CHANGED ALL REFERENCE OF GRAND RAPIDS TO VICTORY AND GRR TO VIO.
CHANGED VIA TO ON IN ARRIVAL ROUTE.

(18) Reasons for Changes:

NAME CHANGED.
PER 7100.9E.

(6) Arrival Name

FAILS

(7) Number

TWO

(8) STAR Computer Code

MACCS.FAILS2

(9) Superseded Nr.

ONE

(10) Dated

20 DEC 2007

(11) Effective Date

13 NOV 2014

STAR (Data Record)

[illegible]

**US Department of Transportation
Federal Aviation Administration****STAR (Data Record)**

SUSAP 2G1 K5GRW02 0021810287 N41395134W081115517-1200 +0268800994000050038D
SUSAP 2G1 K5GRW20 0021812087 N41401137W081114455+1200 +0260700968000050038D

**(11)
Arrival Name**
FAILS

**(12)
Number**
TWO

**(13)
STAR Computer Code**
MACCS.FAILS2

**(14)
Superseded Nr.**
ONE

**(15)
Dated**
20 DEC 2007

**(16)
Effective Date**
13 NOV 2014

**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
	CRL	CRL	010		IF		FB					
	CRL	MACCS	020		TF		FB					
	ELX	ELX	010		IF		FB					
	ELX	CRL	020		TF		FB					
	ELX	MACCS	030		TF		FB					
	SVM	SVM	010		IF		FB					
	SVM	MACCS	020		TF		FB					
	VIO	VIO	010		IF		FB					
	VIO	CRL	020		TF		FB					
	VIO	MACCS	030		TF		FB					
	ALL	MACCS	010		IF		FB					
	ALL	AZTRO	020		TF		FB				AB 14000	
	ALL	FAILS	030		TF		FO					
	ALL	2G1	040		VM		FB		180.0 ()			

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	CRL	N420252.89	W0832727.29	N4202.882	W08327.455
	ELX	N420839.88	W0860721.74	N4208.665	W08607.362
	SVM	N422431.09	W0833538.05	N4224.518	W08335.634
	VIO	N424712.18	W0852949.45	N4247.203	W08529.824
	AZTRO	N415343.36	W0815635.11	N4153.723	W08156.585
	FAILS	N415016.09	W0812513.25	N4150.268	W08125.221
	MACCS	N420103.88	W0830825.26	N4201.065	W08308.421
	RW02	N413951.34	W0811155.17	N4139.856	W08111.920
	RW20	N414011.37	W0811144.55	N4140.190	W08111.743

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW02	00994	50
	RW20	00968	50

(11)
Arrival Name
FAILS

(12)
Number
TWO

(13)
STAR Computer Code
MACCS.FAILS2

(14)
Superseded Nr.
ONE

(15)
Dated
20 DEC 2007

(16)
Effective Date
13 NOV 2014

STAR (Data Record)

[illegible]

**US Department of Transportation
Federal Aviation Administration****STAR (Data Record)**

SUSAP 7G8 K5GRW11 0035001090 N41270122W081040685-0500 +0323301172018250065D
SUSAP 7G8 K5GRW29 0035002890 N41265555W081032393+0500 +0319001158000050065D

**(11)
Arrival Name**
FAILS

**(12)
Number**
TWO

**(13)
STAR Computer Code**
MACCS.FAILS2

**(14)
Superseded Nr.**
ONE

**(15)
Dated**
20 DEC 2007

**(16)
Effective Date**
13 NOV 2014

**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
	CRL	CRL	010		IF		FB					
	CRL	MACCS	020		TF		FB					
	ELX	ELX	010		IF		FB					
	ELX	CRL	020		TF		FB					
	ELX	MACCS	030		TF		FB					
	SVM	SVM	010		IF		FB					
	SVM	MACCS	020		TF		FB					
	VIO	VIO	010		IF		FB					
	VIO	CRL	020		TF		FB					
	VIO	MACCS	030		TF		FB					
	ALL	MACCS	010		IF		FB					
	ALL	AZTRO	020		TF		FB				AB 14000	
	ALL	FAILS	030		TF		FO					
	ALL	7G8	040		VM		FB		180.0 ()			

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	CRL	N420252.89	W0832727.29	N4202.882	W08327.455
	ELX	N420839.88	W0860721.74	N4208.665	W08607.362
	SVM	N422431.09	W0833538.05	N4224.518	W08335.634
	VIO	N424712.18	W0852949.45	N4247.203	W08529.824
	AZTRO	N415343.36	W0815635.11	N4153.723	W08156.585
	FAILS	N415016.09	W0812513.25	N4150.268	W08125.221
	MACCS	N420103.88	W0830825.26	N4201.065	W08308.421
	RW11	N412701.22	W0810406.85	N4127.020	W08104.114
	RW29	N412655.55	W0810323.93	N4126.926	W08103.399

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW11	01172	50
	RW29	01158	50

(11)
Arrival Name
FAILS

(12)
Number
TWO

(13)
STAR Computer Code
MACCS.FAILS2

(14)
Superseded Nr.
ONE

(15)
Dated
20 DEC 2007

(16)
Effective Date
13 NOV 2014

STAR (Data Record)

ARINC PACKET - 424-18 - STAR

[illegible][illegible][illegible]

SEGMENT	1	2	3	4	5	6	7	8	9	0	1	2	3
SUSAP KBKLN5EFAILS21CRL	010CRL	K5D	0V	IF						18000			
SUSAP KBKLN5EFAILS21CRL	020MACCSK5EA0EE	TF											
SUSAP KBKLN5EFAILS21ELX	010ELX	K5D	0V	IF						18000			
SUSAP KBKLN5EFAILS21ELX	020CRL	K5D	0V	TF									
SUSAP KBKLN5EFAILS21ELX	030MACCSK5EA0EE	TF											
SUSAP KBKLN5EFAILS21SVM	010SVM	K5D	0V	IF						18000			
SUSAP KBKLN5EFAILS21SVM	020MACCSK5EA0EE	TF											
SUSAP KBKLN5EFAILS21VIO	010VIO	K5D	0V	IF						18000			
SUSAP KBKLN5EFAILS21VIO	020CRL	K5D	0V	TF									
SUSAP KBKLN5EFAILS21VIO	030MACCSK5EA0EE	TF											
SUSAP KBKLN5EFAILS22ALL	010MACCSK5EA0E	IF								18000			
SUSAP KBKLN5EFAILS22ALL	020AZTROK5EA0E	TF						- 14000					
SUSAP KBKLN5EFAILS22ALL	030FAILSK5EA0EY H	TF											
SUSAP KBKLN5EFAILS22ALL	040KBKL K5PA0AE	VM				1800							

[illegible]

(11) Arrival Name FAILS	(12) Number TWO	(13) STAR Computer Code MACCS.FAILS2	(14) Superseded Nr. ONE	(15) Dated 20 DEC 2007	(16) Effective Date 13 NOV 2014
---	-------------------------------------	--	---	--	---

**US Department of Transportation
Federal Aviation Administration**
STAR (Data Record)

```

-----
SUSAP KBKLG5GRW06L 0061950649 N41305181W081412942+0021 +0142800581017845150V
SUSAP KBKLG5GRW06R 0051990649 N41304712W081412702+0000 +0142700581027550100D
SUSAP KBKLG5GRW24L 0051992449 N41311295W081403220+0000 +0143200583000050100D
SUSAP KBKLG5GRW24R 0061952449 N41312239W081402454-0021 +01432005830600421501IBFT1
  
```

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
FAILS	TWO	MACCS.FAILS2	ONE	20 DEC 2007	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
	CRL	CRL	010		IF		FB					
	CRL	MACCS	020		TF		FB					
	ELX	ELX	010		IF		FB					
	ELX	CRL	020		TF		FB					
	ELX	MACCS	030		TF		FB					
	SVM	SVM	010		IF		FB					
	SVM	MACCS	020		TF		FB					
	VIO	VIO	010		IF		FB					
	VIO	CRL	020		TF		FB					
	VIO	MACCS	030		TF		FB					
	ALL	MACCS	010		IF		FB					
	ALL	AZTRO	020		TF		FB				AB 14000	
	ALL	FAILS	030		TF		FO					
	ALL	KBKL	040		VM		FB		180.0()			

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	CRL	N420252.89	W0832727.29	N4202.882	W08327.455
	ELX	N420839.88	W0860721.74	N4208.665	W08607.362
	SVM	N422431.09	W0833538.05	N4224.518	W08335.634
	VIO	N424712.18	W0852949.45	N4247.203	W08529.824
	AZTRO	N415343.36	W0815635.11	N4153.723	W08156.585
	FAILS	N415016.09	W0812513.25	N4150.268	W08125.221
	MACCS	N420103.88	W0830825.26	N4201.065	W08308.421
	RW06L	N413051.81	W0814129.42	N4130.864	W08141.490
	RW06R	N413047.12	W0814127.02	N4130.785	W08141.450
	RW24L	N413112.95	W0814032.20	N4131.216	W08140.537
	RW24R	N413122.39	W0814024.54	N4131.373	W08140.409

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW06L	00581	45
	RW06R	00581	50
	RW24L	00583	50
	RW24R	00583	42

(11)
Arrival Name
FAILS

(12)
Number
TWO

(13)
STAR Computer Code
MACCS.FAILS2

(14)
Superseded Nr.
ONE

(15)
Dated
20 DEC 2007

(16)
Effective Date
13 NOV 2014

STAR (Data Record)

[illegible]

**US Department of Transportation
Federal Aviation Administration****STAR (Data Record)**

SUSAP KCGFK5GRW06 0051020575 N41333807W081293639+0100 +0231700873000042100R
SUSAP KCGFK5GRW24 0051022375 N41341082W081284537-0100 +0233600879000050100IICGF1

**(11)
Arrival Name**
FAILS

**(12)
Number**
TWO

**(13)
STAR Computer Code**
MACCS.FAILS2

**(14)
Superseded Nr.**
ONE

**(15)
Dated**
20 DEC 2007

**(16)
Effective Date**
13 NOV 2014

**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
	CRL	CRL	010		IF		FB					
	CRL	MACCS	020		TF		FB					
	ELX	ELX	010		IF		FB					
	ELX	CRL	020		TF		FB					
	ELX	MACCS	030		TF		FB					
	SVM	SVM	010		IF		FB					
	SVM	MACCS	020		TF		FB					
	VIO	VIO	010		IF		FB					
	VIO	CRL	020		TF		FB					
	VIO	MACCS	030		TF		FB					
	ALL	MACCS	010		IF		FB					
	ALL	AZTRO	020		TF		FB				AB 14000	
	ALL	FAILS	030		TF		FO					
	ALL	KCGF	040		VM		FB		180.0()			

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	CRL	N420252.89	W0832727.29	N4202.882	W08327.455
	ELX	N420839.88	W0860721.74	N4208.665	W08607.362
	SVM	N422431.09	W0833538.05	N4224.518	W08335.634
	VIO	N424712.18	W0852949.45	N4247.203	W08529.824
	AZTRO	N415343.36	W0815635.11	N4153.723	W08156.585
	FAILS	N415016.09	W0812513.25	N4150.268	W08125.221
	MACCS	N420103.88	W0830825.26	N4201.065	W08308.421
	RW06	N413338.07	W0812936.39	N4133.635	W08129.607
	RW24	N413410.82	W0812845.37	N4134.180	W08128.756

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW06	00873	42
	RW24	00879	50

(11)
Arrival Name
FAILS

(12)
Number
TWO

(13)
STAR Computer Code
MACCS.FAILS2

(14)
Superseded Nr.
ONE

(15)
Dated
20 DEC 2007

(16)
Effective Date
13 NOV 2014

STAR (Data Record)

[illegible]

**US Department of Transportation
Federal Aviation Administration**
STAR (Data Record)

```

-----
SUSAP KLNNK5GRW05 0050280526 N41405254W081234682-0100 +0155800624042840100R
SUSAP KLNNK5GRW10 0042720985 N41405707W081234603+0000 +0155700624000040100R
SUSAP KLNNK5GRW23 0050282326 N41412490W081230426+0100 +0154400620000040100R
SUSAP KLNNK5GRW28 0042722785 N41405679W081230454+0000 +0156300626112440100R

```

**(11)
Arrival Name**
FAILS

**(12)
Number**
TWO

**(13)
STAR Computer Code**
MACCS.FAILS2

**(14)
Superseded Nr.**
ONE

**(15)
Dated**
20 DEC 2007

**(16)
Effective Date**
13 NOV 2014

**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
	CRL	CRL	010		IF		FB					
	CRL	MACCS	020		TF		FB					
	ELX	ELX	010		IF		FB					
	ELX	CRL	020		TF		FB					
	ELX	MACCS	030		TF		FB					
	SVM	SVM	010		IF		FB					
	SVM	MACCS	020		TF		FB					
	VIO	VIO	010		IF		FB					
	VIO	CRL	020		TF		FB					
	VIO	MACCS	030		TF		FB					
	ALL	MACCS	010		IF		FB					
	ALL	AZTRO	020		TF		FB				AB 14000	
	ALL	FAILS	030		TF		FO					
	ALL	KLNN	040		VM		FB		180.0()			

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	CRL	N420252.89	W0832727.29	N4202.882	W08327.455
	ELX	N420839.88	W0860721.74	N4208.665	W08607.362
	SVM	N422431.09	W0833538.05	N4224.518	W08335.634
	VIO	N424712.18	W0852949.45	N4247.203	W08529.824
	AZTRO	N415343.36	W0815635.11	N4153.723	W08156.585
	FAILS	N415016.09	W0812513.25	N4150.268	W08125.221
	MACCS	N420103.88	W0830825.26	N4201.065	W08308.421
	RW05	N414052.54	W0812346.82	N4140.876	W08123.780
	RW10	N414057.07	W0812346.03	N4140.951	W08123.767
	RW23	N414124.90	W0812304.26	N4141.415	W08123.071
	RW28	N414056.79	W0812304.54	N4140.947	W08123.076

RUNWAY DATA	THRESHOLD ELEVATION	TCH
	RWY	
	RW05 00624	40
	RW10 00624	40
	RW23 00620	40
	RW28 00626	40

(11)
Arrival Name
FAILS

(12)
Number
TWO

(13)
STAR Computer Code
MACCS.FAILS2

(14)
Superseded Nr.
ONE

(15)
Dated
20 DEC 2007

(16)
Effective Date
13 NOV 2014