

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 |
|---------------------|-------------------------------|---------------------------------|--|--|---|----------|---------|--|
| FRNCH | FRNCH.SKARF1 | FRNCH WP | FRNCH WP SKARF WP TOMSN WP ALISE WP DORKE WP ARCHY WP | 93.53/14.40 93.73/11.60 121.68/10.00 121.79/06.00 121.81/16.66 | 16000 16000 13100 9600 9100 | | | AT/ABOVE FL250, AT/BELOW FL300 AT/ABOVE FL220, AT/BELOW FL250 AT/ABOVE FL200, AT/BELOW FL220 AT/ABOVE 15000, AT/BELOW 17000 AT 15000 |

(2) Arrival Route Description: : LANDING RWY 17L: CROSS ARCHY AT 15000 AT 250K (MEA 9100), THEN ON TRACK 121.93/5.23 TO BABAA (MEA 9100), THENCE AS DEPICTED TO CROSS LOWRE AT 7800 (MEA 7800). EXPECT RNAV (GPS) RWY 17L OR VISUAL APPROACH

LANDING RWY 35R: CROSS ARCHY AT 15000 AT 250K (MEA 9100), THEN ON TRACK 121.93 TO BABAA (MEA 9100), THENCE AS DEPICTED TO CROSS FIRPI AT 9000 (MEA 9000). EXPECT ILS RWY 35R OR VISUAL APPROACH

Continued on block 16...

(3) Procedural Data Notes: NOTE: DME/DME/IRU OR GPS REQUIRED. NOTE: RADAR REQUIRED. NOTE: TURBOJETS ONLY. NOTE: RNAV1. NOTE: EXPECT RUNWAY ASSIGNMENT ON INITIAL CONTACT WITH DENVER TRACON. NOTE: FOR NON-GPS EQUIPPED AIRCRAFT LANDING APA RWY 35R, BJC DME MUST BE OPERATIONAL.

(4) Fixes and/or Holding Patterns: CHART HOLDING AT FRNCH (HOLD W, LT, 086.51 INBOUND, 15 NM LEGS.) CHART HOLDING AT SKARF (HOLD W, LT, 093.53 INBOUND, 10 NM LEGS.)

(5) Communications: APA TWR, APA ATIS, DEN APP CON

QUALITY
4
CHECKED

| (6) Arrival Name | (7) Number | (8) STAR Computer Code | (9) Superseded Nr. | (10) Dated | (11) Effective Date |
|------------------|------------|------------------------|--------------------|------------|---------------------|
| SKARF RNAV | ONE | SKARF.SKARF1 | NONE | | 15 NOV 2012 |

(12) Airports Served**Airport Name** CENTENNIAL**City/State** DENVER, CO**Airport Name****City/State****Airport Name****City/State****Airport Name****City/State****Airport Name****City/State****Airport Name****City/State****(13) Lost Communications Procedure:** IN THE EVENT OF LOST COMMUNICATIONS PRIOR TO RUNWAY ASSIGNMENT, EXECUTE THE ILS RWY 35R.**(14) Remarks:** MOUNTAINOUS TERRAIN REDUCTION TAKEN IN SEGMENTS ENDING AT CPPR, HUUKK, XSTRA, XFROM, XLENT, XPATH, XBEEE, AND FIRPI.**(15) Additional Flight Data:** REFERENCE MAGNETIC VARIATION = KDEN 8E/2015

DME/DME/IRU ASSESSMENT SAT (RNP 2.0)

CHART CENTENNIAL AIRPORT

CHART 280KT AT FRNCH

CHART 270KT AT SKARF

CHART 250KT AT TOMSN

CHART 250KT AT ARCHY

**(6) Arrival Name**

SKARF RNAV

(7) Number

ONE

(8) STAR Computer Code

SKARF.SKARF1

(9) Superseded Nr.

NONE

(10) Dated**(11) Effective Date**

15 NOV 2012

(16) Continuation:**(2) Arrival Route Description:** (BLOCK 2 DETAILED ARRIVAL ROUTE DESCRIPTION FOR CHARTING)

LANDING RW17L: CROSS ARCHY AT 15000 AT 250K (MEA 9100), THEN ON TRACK 121.93/5.23 TO BABAA (MEA 9100), THEN ON TRACK 109.52/6.40 TO CROSS BEEBS AT/ABOVE 12000 (MEA 9000), THEN ON TRACK 172.24/5.81 TO CROSS CREEQ AT 11000 (MEA 9000), THEN ON TRACK 232.43/6.14 TO CROSS BLUKN AT/ABOVE 9000 AND AT/BELOW 9500 AT 210 KNOTS (MEA 9000), THEN ON TRACK 228.11/3.16 TO CROSS CENIK AT/ABOVE 8500 AND AT/BELOW 9000 (MEA 8500), THEN ON TRACK 174.59/2.20 TO CROSS LOWRE AT 7800 (MEA 7800). EXPECT RNAV (GPS) RWY 17L OR VISUAL APPROACH

LANDING RW35R: CROSS ARCHY AT 15000 AT 250K (MEA 9100), THEN ON TRACK 121.93/5.23 TO BABAA (MEA 9100), THEN ON TRACK 133.43/10.67 TO DEN VOR/DME (MEA 9100), THEN ON TRACK 172.53/10.25 TO CELBI (MEA 9100), THEN ON TRACK 172.53/6.40 TO CRUUP (MEA 9100), THEN ON TRACK 172.53/6.47 TO CPPR (MEA 9100), THEN ON TRACK 172.85/3.11 TO CROSS HUUKK AT 15000 AT 210 KTS (MEA 9100), THEN ON TRACK 172.64/5.06 TO CROSS XSTRA AT/ABOVE 14000 (MEA 9100), THEN ON TRACK 172.61/4.11 TO XFROM (MEA 9100), THEN ON TRACK 221.85/4.73 TO CROSS XLENT AT/ABOVE 12000 (MEA 9100), THEN ON TRACK 288.76/4.64 TO XPATH (MEA 9100), THEN ON TRACK 350.19/5.43 TO CROSS XBEEB AT 9000 (MEA 9000), THEN ON TRACK 350.25/2.91 TO CROSS FIRPI AT 9000 (MEA 9000). EXPECT ILS RWY 35R OR VISUAL APPROACH

(17) Changes: ORIGINAL PROCEDURE**(18) Reasons for Changes:**

09/18/12: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 05/11/12.

1. CHANGED ARRIVAL ROUTE DESCRIPTION CROSSING RESTRICTION AT LOWRE FROM AT OR ABOVE 7800 TO AT 7800.

QUALITY
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P

(6) Arrival Name
SKARF RNAV

(7) Number
ONE

(8) STAR Computer Code
SKARF.SKARF1

(9) Superseded Nr.
NONE

(10) Dated

(11) Effective Date
15 NOV 2012

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

| (1) FIX/NAVAID | (2) LAT/LONG | (3) C | (4) FO/FB | (5) LEG | (6) TC | (7) DIST | (8) ALTITUDE | (9) SPEED | (10) REMARKS | |
|--|--------------------------|------------------------------|--------------|---|-----------|-------------|---------------------------------------|--------------|-----------------|--|
| En Route Transition | | | | | | | | | | |
| FRNCH WP | 402641.08N / 1055932.40W | Y | | IF | | | +FL250, -FL300 | 280K | FRNCH.SKARF1 | |
| SKARF WP | 402346.82N / 1054104.41W | Y | FB | TF | 101.53 | 14.40 | +FL220, -FL250 | 270K | | |
| TOMSN WP | 402124.27N / 1052613.05W | Y | FB | TF | 101.73 | 11.60 | +FL200, -FL220 | 250K | | |
| ALISE WP | 401500.47N / 1051609.94W | Y | FB | TF | 129.68 | 10.00 | | | | |
| DORKE WP | 401109.77N / 1051008.99W | Y | FB | TF | 129.79 | 06.00 | +15000, -17000 | | | |
| ARCHY WP | 400027.98N / 1045329.62W | Y | FB | TF | 129.81 | 16.66 | 15000 | 250K | | |
| Runway Transition | | | | | | | | | | |
| ARCHY WP | 400027.98N / 1045329.62W | Y | | IF | | | 15000 | 250K | | |
| BABAA WP | 395706.21N / 1044816.53W | Y | FB | TF | 129.93 | 05.23 | | | | |
| BEEBS WP | 395408.37N / 1044053.97W | Y | FB | TF | 117.52 | 06.40 | +12000 | | | |
| CREEQ WP | 394819.40N / 1044055.85W | Y | FB | TF | 180.24 | 05.81 | 11000 | | | |
| BLUKN WP | 394517.34N / 1044751.13W | Y | FB | TF | 240.43 | 06.14 | +9000, -9500 | 210K | | |
| CENIK WP | 394331.50N / 1045115.06W | Y | FB | TF | 236.11 | 03.16 | +8500, -9000 | | | |
| LOWRE WP | 394119.79N / 1045122.76W | Y | FB | TF | 182.59 | 02.20 | 7800 | | | |
| (11) Arrival Name SKARF RNAV | | (12) Number ONE | | (13) STAR Computer Code SKARF.SKARF1 | | | (14) Superseded Nr. NONE | | (15) Dated | (16) Effective Date 15 NOV 2012 |

QUALITY
CHECKED

| US Department of Transportation Federal Aviation Administration | | | | RNAV STAR (Data Record) | | | | | | |
|--|-----------------------------|-----------------------|--------------|--|-----------|-------------|--------------------------------|--------------|-----------------|---------------------------------------|
| (1) FIX/NAVAID | (2) LAT/LONG | (3) C | (4) FO/FB | (5) LEG | (6) TC | (7) DIST | (8) ALTITUDE | (9) SPEED | (10) REMARKS | |
| KAPA: RW17L | | | | | | | | | | |
| | | | | | | | | | | |
| Runway Transition | | | | | | | | | | |
| ARCHY WP | 400027.98N / 1045329.62W | Y | | IF | | | 15000 | 250K | | |
| BABAA WP | 395706.21N / 1044816.53W | Y | FB | TF | 129.93 | 05.23 | | | | |
| DEN VOR/DME | 394845.05N / 1043938.66W | Y | FB | TF | 141.43 | 10.67 | | | | |
| CELBI WP | 393829.55N / 1043946.04W | Y | FB | TF | 180.53 | 10.25 | | | | |
| CRUUP WP | 393205.28N / 1043950.60W | Y | FB | TF | 180.53 | 06.40 | | | | |
| CPPER WP | 392536.59N / 1043955.22W | Y | FB | TF | 180.53 | 06.47 | | | | |
| HUUKK WP | 392229.63N / 1043958.81W | Y | FB | TF | 180.85 | 03.11 | 15000 | 210K | | |
| XSTRA WP | 391725.82N / 1044003.21W | Y | FB | TF | 180.64 | 05.06 | +14000 | | | |
| XFROM WP | 391319.01N / 1044006.57W | Y | FB | TF | 180.61 | 04.11 | | | | |
| XLENT WP | 391015.80N / 1044445.48W | Y | FB | TF | 229.85 | 04.73 | +12000 | | | |
| XPATH WP | 391221.19N / 1045005.46W | Y | FB | TF | 296.76 | 04.64 | | | | |
| XBEEE WP | 391747.21N / 1045018.72W | Y | FB | TF | 358.19 | 05.43 | 9000 | | | |
| FIRPI WP | 392042.01N / 1045025.60W | Y | FB | TF | 358.25 | 02.91 | 9000 | | | |
| (11) Arrival Name SKARF RNAV | | (12) Number ONE | | (13) STAR Computer Code SKARF.SKARF1 | | | (14) Superseded Nr. NONE | | (15) Dated | (16) Effective Date 15 NOV 2012 |

QUALITY
CHECKED

| US Department of Transportation Federal Aviation Administration | | | | | | | | RNAV STAR (Data Record) | | | | |
|--|--|------------------------------|--|---|--|--|---------------------------------------|-------------------------|---------------|--|--|--|
| KAPA: RWY 35R | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| (11) Arrival Name SKARF RNAV | | (12) Number ONE | | (13) STAR Computer Code SKARF.SKARF1 | | | (14) Superseded Nr. NONE | | (15) Dated | | (16) Effective Date 15 NOV 2012 | |

STAR (Data Record)

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Page 5 of 7

**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 |
|--------|------------|-------|-----|-----|------|------|-------|-----|------------|----------|---------------|--------|
| | FRNCH | FRNCH | 010 | | IF | | FB | | | | BT FL300FL250 | AT 280 |
| | FRNCH | SKARF | 020 | | TF | | FB | 1.0 | 093.5 () | 014.4 | BT FL250FL220 | AT 270 |
| | FRNCH | TOMSN | 030 | | TF | | FB | 1.0 | 093.7 () | 011.6 | BT FL220FL200 | AT 250 |
| | FRNCH | ALISE | 040 | | TF | | FB | 1.0 | 121.7 () | 010.0 | | |
| | FRNCH | DORKE | 050 | | TF | | FB | 1.0 | 121.8 () | 006.0 | BT 1700015000 | |
| | FRNCH | ARCHY | 060 | | TF | | FB | 1.0 | 121.8 () | 016.7 | AT 15000 | AT 250 |
| | RW17L | ARCHY | 010 | | IF | | FB | | | | AT 15000 | AT 250 |
| | RW17L | BABAA | 020 | | TF | | FB | 1.0 | 121.9 () | 005.2 | | |
| | RW17L | BEEBS | 030 | | TF | | FB | 1.0 | 109.5 () | 006.4 | AA 12000 | |
| | RW17L | CREEQ | 040 | | TF | | FB | 1.0 | 172.2 () | 005.8 | AT 11000 | |
| | RW17L | BLUKN | 050 | | TF | | FB | 1.0 | 232.4 () | 006.1 | BT 0950009000 | AT 210 |
| | RW17L | CENIK | 060 | | TF | | FB | 1.0 | 228.1 () | 003.2 | BT 0900008500 | |
| | RW17L | LOWRE | 070 | | TF | | FB | 1.0 | 174.6 () | 002.2 | AA 07800 | |
| | RW35R | ARCHY | 010 | | IF | | FB | | | | AT 15000 | AT 250 |
| | RW35R | BABAA | 020 | | TF | | FB | 1.0 | 121.9 () | 005.2 | | |
| | RW35R | DEN | 030 | | TF | | FB | 1.0 | 133.4 () | 010.7 | | |
| | RW35R | CELBI | 040 | | TF | | FB | 1.0 | 172.5 () | 010.3 | | |
| | RW35R | CRUUP | 050 | | TF | | FB | 1.0 | 172.5 () | 006.4 | | |
| | RW35R | CPPER | 060 | | TF | | FB | 1.0 | 172.5 () | 006.5 | | |
| | RW35R | HUUKK | 070 | | TF | | FB | 1.0 | 172.9 () | 003.1 | AT 15000 | AT 210 |
| | RW35R | XSTRA | 080 | | TF | | FB | 1.0 | 172.6 () | 005.1 | AA 14000 | |
| | RW35R | XFROM | 090 | | TF | | FB | 1.0 | 172.6 () | 004.1 | | |
| | RW35R | XLENT | 100 | | TF | | FB | 1.0 | 221.9 () | 004.7 | AA 12000 | |
| | RW35R | XPATH | 110 | | TF | | FB | 1.0 | 288.8 () | 004.6 | | |
| | RW35R | XBEEE | 120 | | TF | | FB | 1.0 | 350.2 () | 005.4 | AT 09000 | |
| | RW35R | FIRPI | 130 | | TF | | FB | 1.0 | 350.3 () | 002.9 | AT 09000 | |

| POINT DATA | WAYPOINT | LAT IN SECS | LONG IN SECS | LAT IN MINS | LONG IN MINS |
|------------|----------|-------------|--------------|-------------|--------------|
| | DEN | N394845.05 | W1043938.66 | N3948.751 | W10439.644 |
| | ALISE | N401500.47 | W1051609.94 | N4015.008 | W10516.166 |
| | ARCHY | N400027.98 | W1045329.62 | N4000.466 | W10453.494 |
| | BABAA | N395706.21 | W1044816.53 | N3957.104 | W10448.276 |
| | BEEBS | N395408.37 | W1044053.97 | N3954.140 | W10440.900 |
| | BLUKN | N394517.34 | W1044751.13 | N3945.289 | W10447.852 |
| | CELBI | N393829.55 | W1043946.04 | N3938.493 | W10439.767 |
| | CENIK | N394331.50 | W1045115.06 | N3943.525 | W10451.251 |
| | CPPER | N392536.59 | W1043955.22 | N3925.610 | W10439.920 |

(11)
Arrival Name
SKARF RNAV

(12)
Number
ONE

(13)
STAR Computer Code
SKARF.SKARF1

(14)
Superseded Nr.
NONE

(15)
Dated

(16)
Effective Date
15 NOV 2012

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

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|-------|------------|-------------|-----------|------------|
| CREEQ | N394819.40 | W1044055.85 | N3948.323 | W10440.931 |
| CRUUP | N393205.28 | W1043950.60 | N3932.088 | W10439.843 |
| DORKE | N401109.77 | W1051008.99 | N4011.163 | W10510.150 |
| FIRPI | N392042.01 | W1045025.60 | N3920.700 | W10450.427 |
| FRNCH | N402641.08 | W1055932.40 | N4026.685 | W10559.540 |
| HUUKK | N392229.63 | W1043958.81 | N3922.494 | W10439.980 |
| LOWRE | N394119.79 | W1045122.76 | N3941.330 | W10451.379 |
| SKARF | N402346.82 | W1054104.41 | N4023.780 | W10541.074 |
| TOMSN | N402124.27 | W1052613.05 | N4021.405 | W10526.218 |
| XBEEE | N391747.21 | W1045018.72 | N3917.787 | W10450.312 |
| XFROM | N391319.01 | W1044006.57 | N3913.317 | W10440.110 |
| XLENT | N391015.80 | W1044445.48 | N3910.263 | W10444.758 |
| XPATH | N391221.19 | W1045005.46 | N3912.353 | W10450.091 |
| XSTRA | N391725.82 | W1044003.21 | N3917.430 | W10440.054 |
| RW17L | N393502.92 | W1045105.30 | N3935.049 | W10451.088 |
| RW35R | N393324.18 | W1045100.74 | N3933.403 | W10451.012 |

RUNWAY DATA

| RWY | THRESHOLD ELEVATION | TCH |
|-------|------------------------|-----|
| RW17L | 05793 | 47 |
| RW35R | 05885 | 53 |

(11)
Arrival Name
SKARF RNAV

(12)
Number
ONE

(13)
STAR Computer Code
SKARF.SKARF1

(14)
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NONE

(15)
Dated

(16)
Effective Date
15 NOV 2012