

SKPQ/PAL
CAPT GERMAN OLANO

JEPPESEN
30 NOV 18 10-2 Eff 6 Dec

PUERTO SALGAR,
COLOMBIA

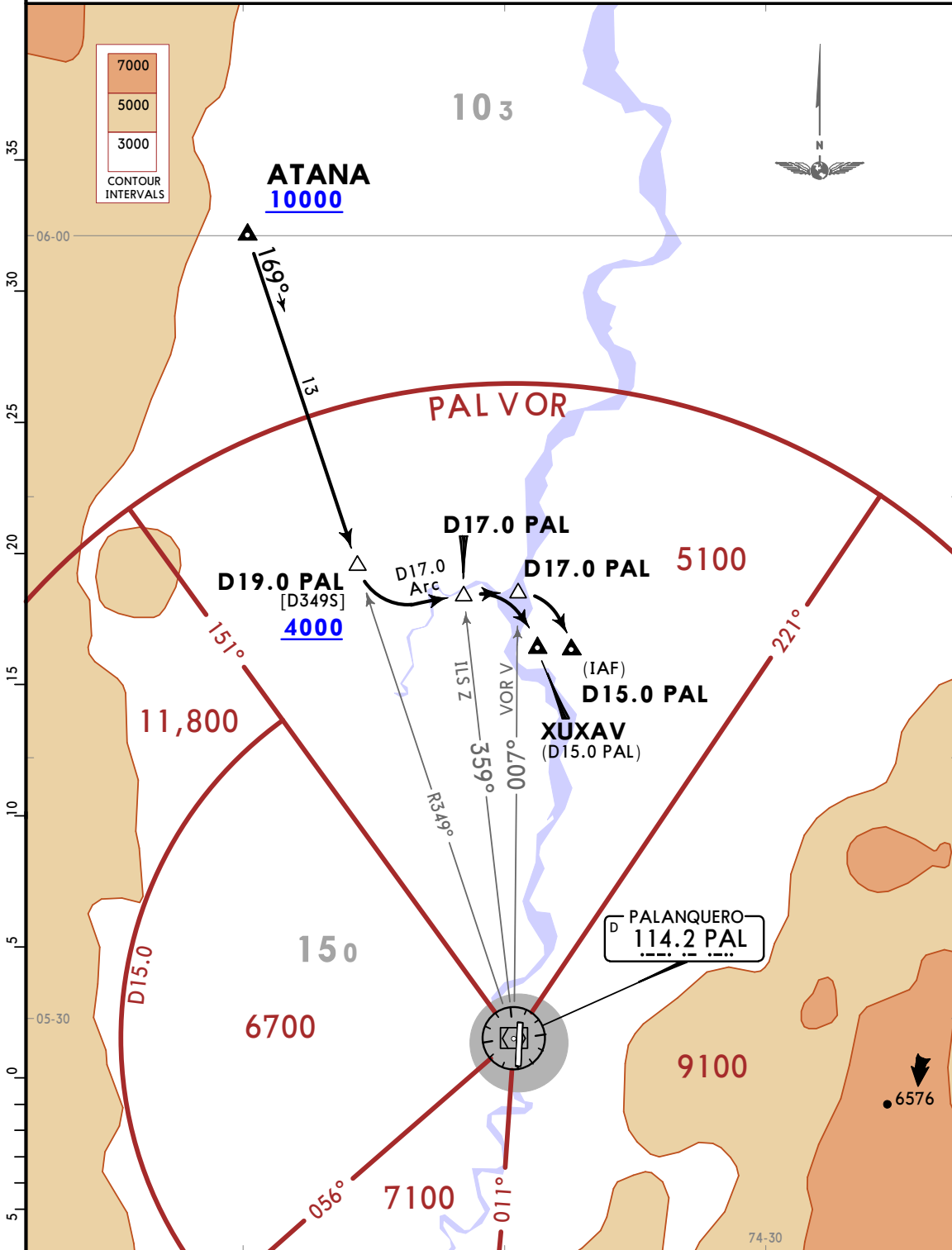
STAR

Apt Elev
566

Alt Set: IN (hPa on req) Trans level: FL190
1. PAL VOR/DME required.
2. It is authorized to initiate ILS Z or VOR V approach at 4000.

ATANA 1R [ATAN1R]
RWY 19 ARRIVAL

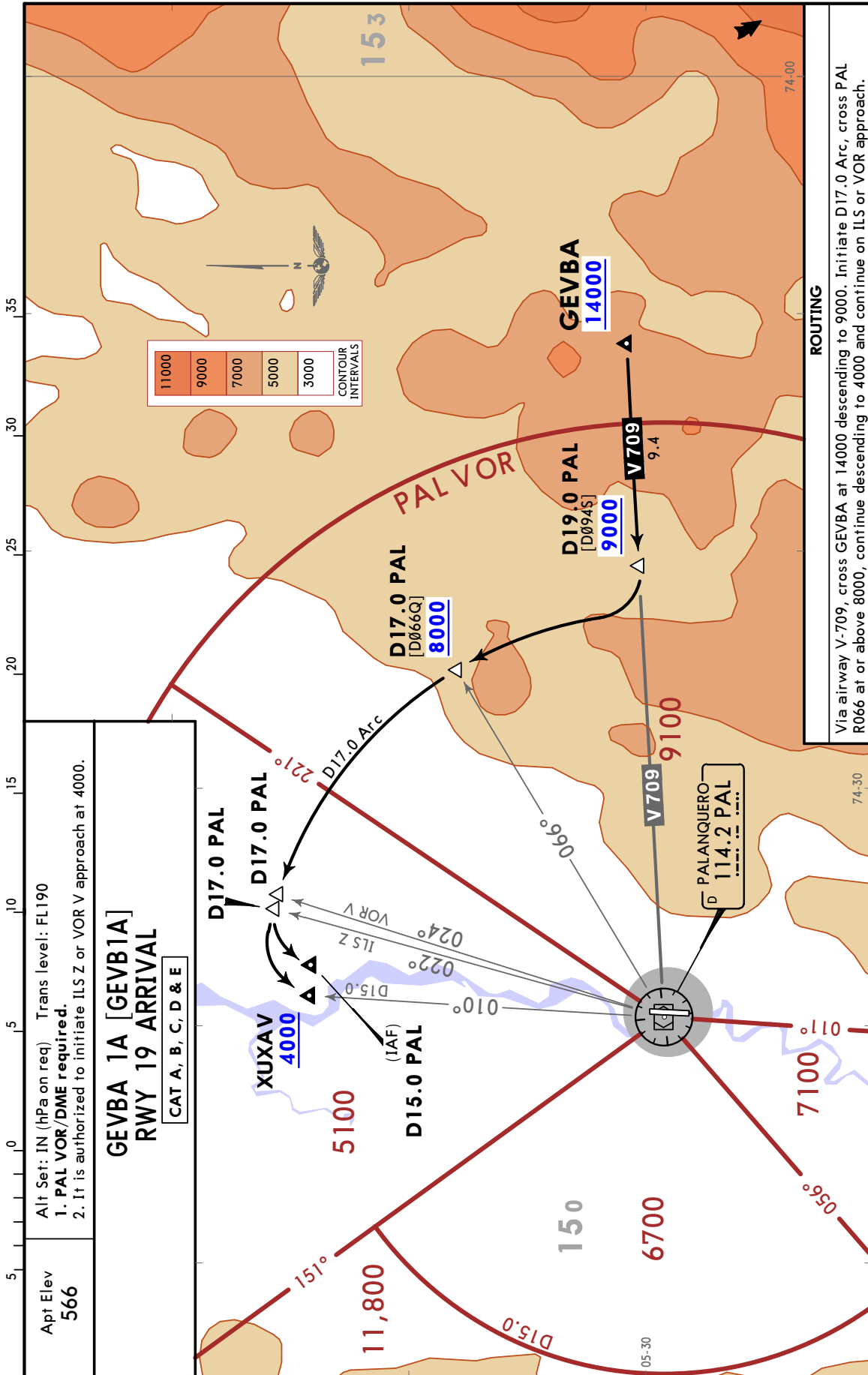
CAT A, B, C, D & E



ROUTING
Cross ATANA at 10000, turn LEFT onto heading 169° descending to 4000. With prior ATC authorization, execute D17.0 Arc and proceed onto ILS or VOR approach.

CHANGES: New airport.

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CHANGES: New airport.

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SKPQ/PAL
CAPT GERMAN OLANO

JEPPESEN
1 OCT 21 10-2B Eff 7 Oct

PUERTO SALGAR,
COLOMBIA

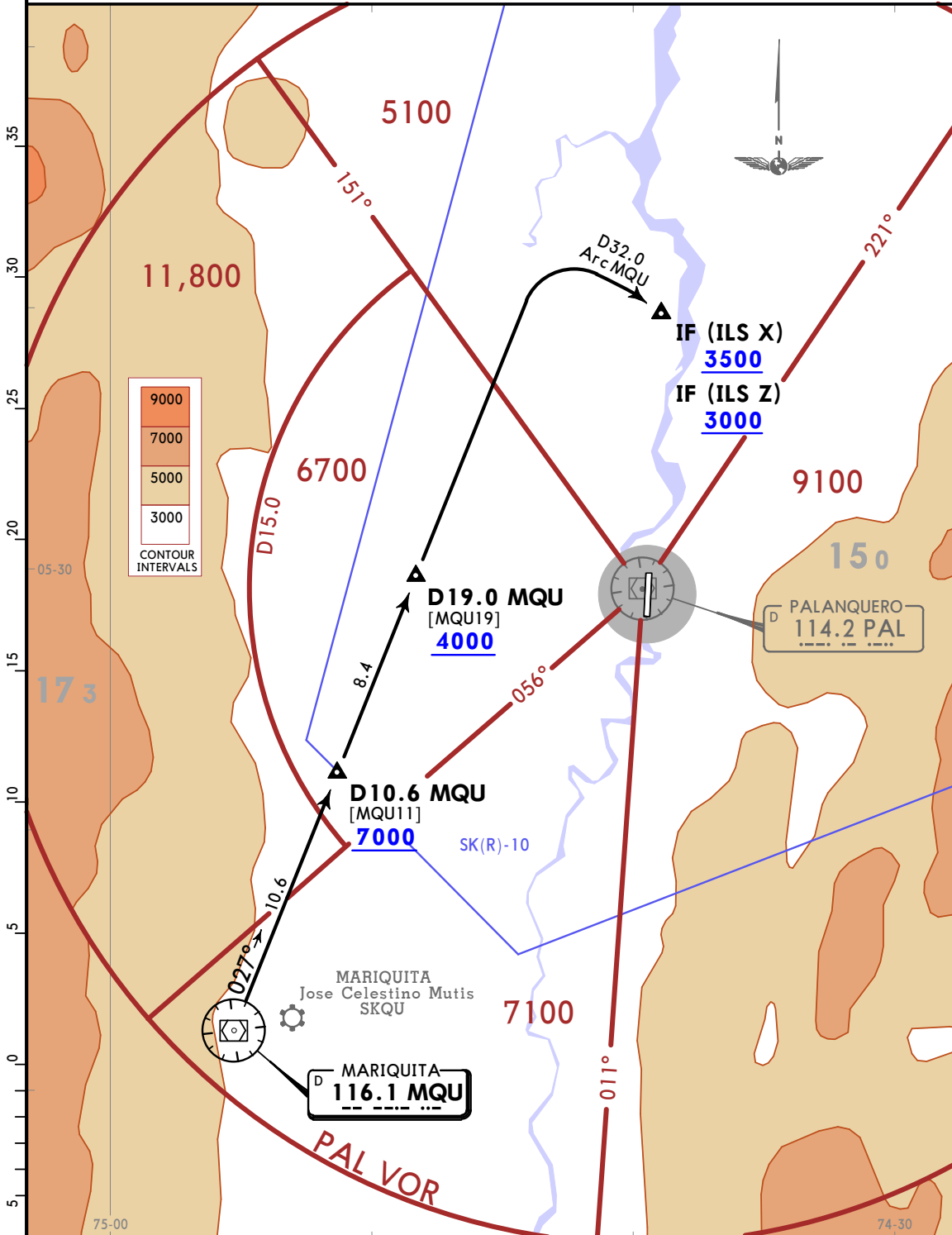
STAR

Apt Elev
566

Alt Set: hPa (IN on req) Trans level: FL190
1. MQU VOR/DME required.
2. PAL DME/LOC required.
3. ILS X altitude at IF (PQ402) 3500. ILS Z altitude at IF 3000.

MARIQUITA 1R [MQU1R] ARRIVAL (RWY 19)

CAT A, B, C & D



ROUTING

Leave MQU VOR on course 027° at 7000, until entering SK(R)-10. At D10.6 MQU, initiate descent to 4000 and execute D32.0 Arc MQU to intercept the localizer and follow ILS X or ILS Z RWY 19 approach.

CHANGES: Waypoints, distances, text.

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CAPT GERMAN OLANO

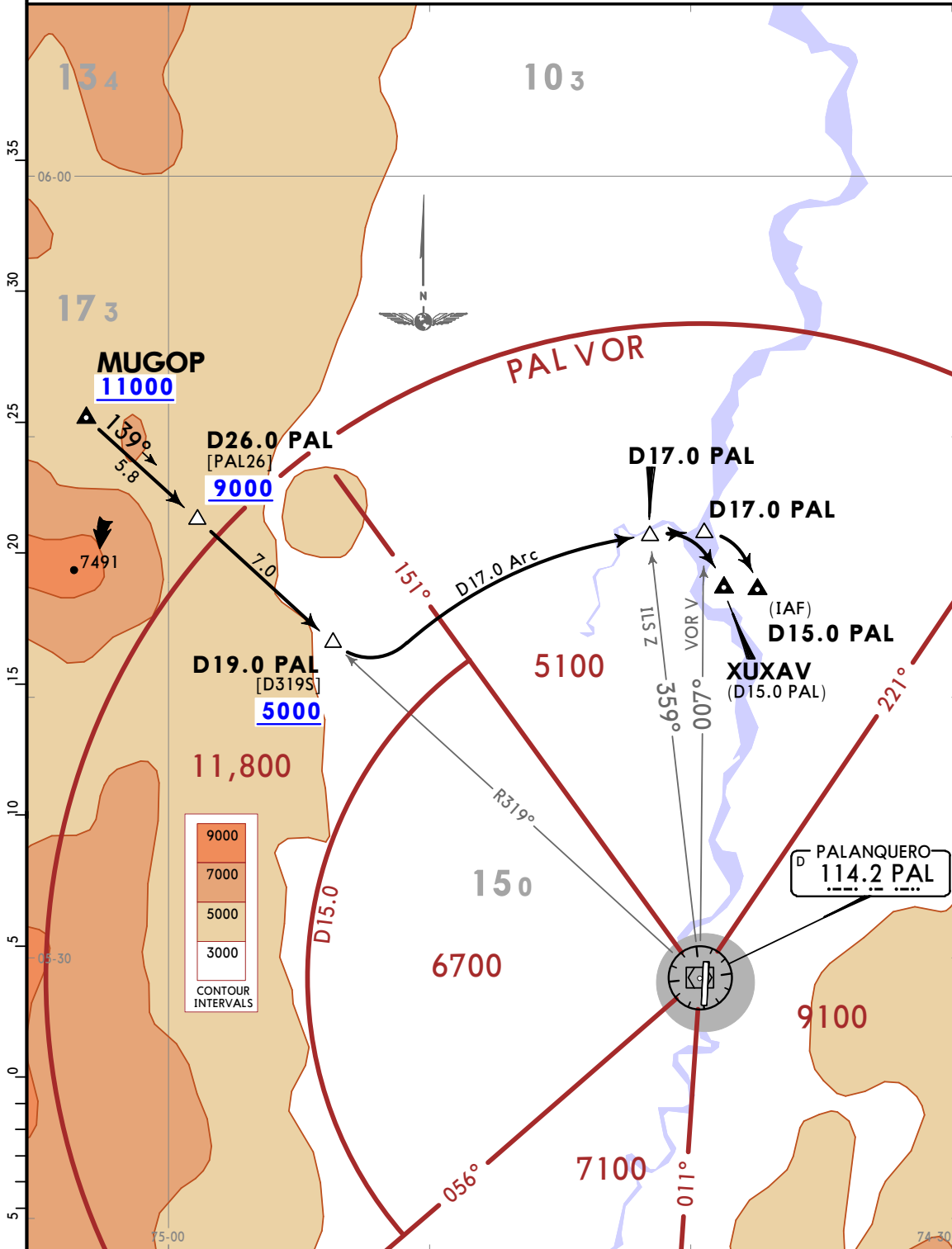
JEPPESEN
1 OCT 21 10-2C Eff 7 Oct

PUERTO SALGAR,
COLOMBIA
STAR

Apt Elev
566

Alt Set: hPa (IN on req) Trans level: FL190
1. PAL VOR/DME required.
2. It is authorized to initiate ILS Z or VOR V approach at 4000.

MUGOP 1R [MUGO1R]
RWY 19 ARRIVAL
CAT A, B, C, D & E



ROUTING

Via MUGOP at 11000, turn to intercept PAL R319 descending to 9000. Crossing D26.0 PAL, initiate descent to 5000 and execute D17.0 Arc and follow ILS or VOR approach.

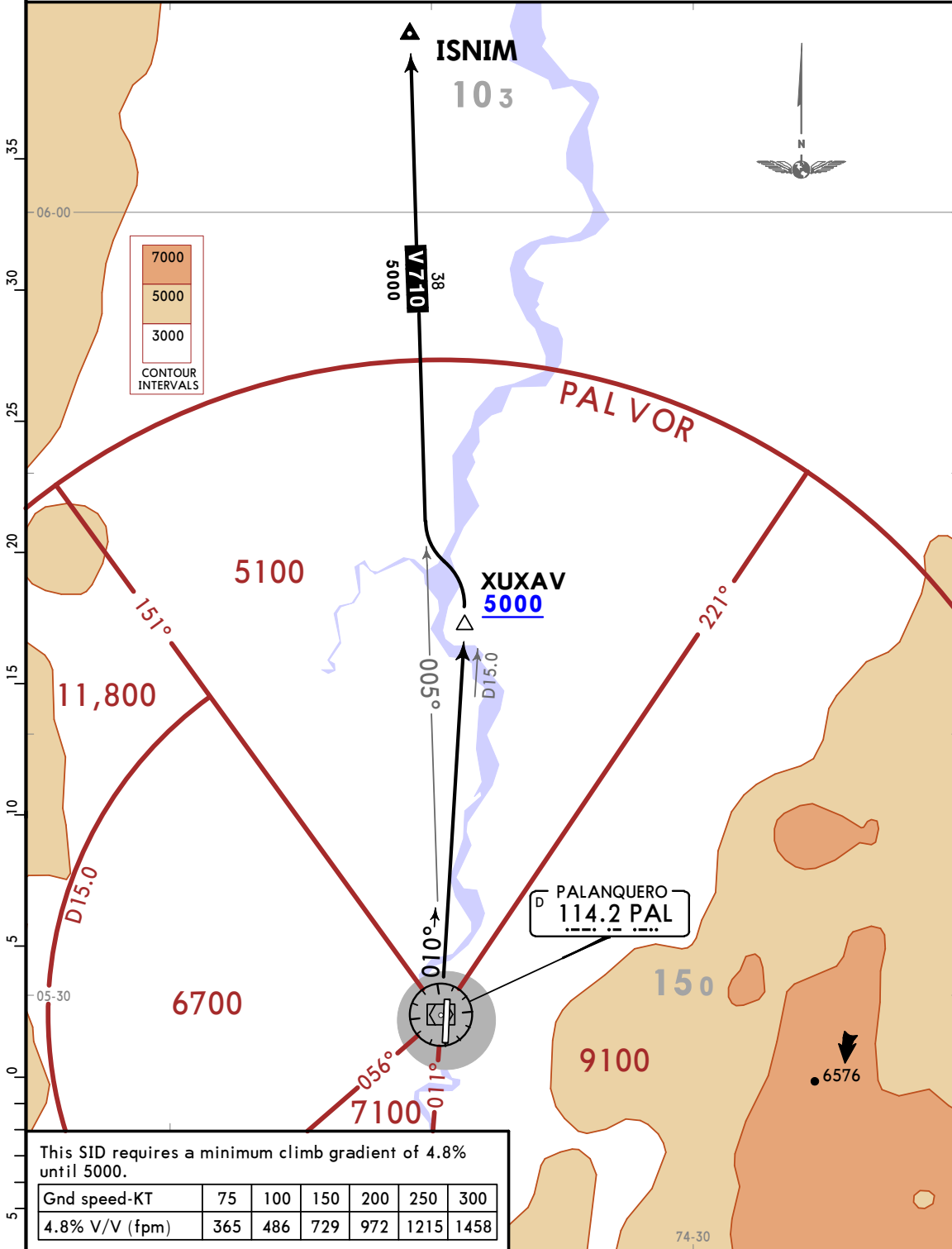
CHANGES: None.

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Apt Elev
566

Trans alt: 18000
1. PAL VOR/DME required.
2. Turns are not allowed before DER.

ISNIM 1B [ISNI1B]
RWY 01 DEPARTURE
CAT A, B, C, D & E



This SID requires a minimum climb gradient of 4.8% until 5000.

| | | | | | | |
|----------------|-----|-----|-----|-----|------|------|
| Gnd speed-KT | 75 | 100 | 150 | 200 | 250 | 300 |
| 4.8% V/V (fpm) | 365 | 486 | 729 | 972 | 1215 | 1458 |

INITIAL CLIMB

After takeoff, climb on runway heading until reaching 5000 to intercept and follow PAL R010 to XUXAV. Turn LEFT to intercept and follow airway V-710.

SKPQ/PAL
CAPT GERMAN OLANO

JEPPESEN
30 NOV 18 (10-3A) Eff 6 Dec

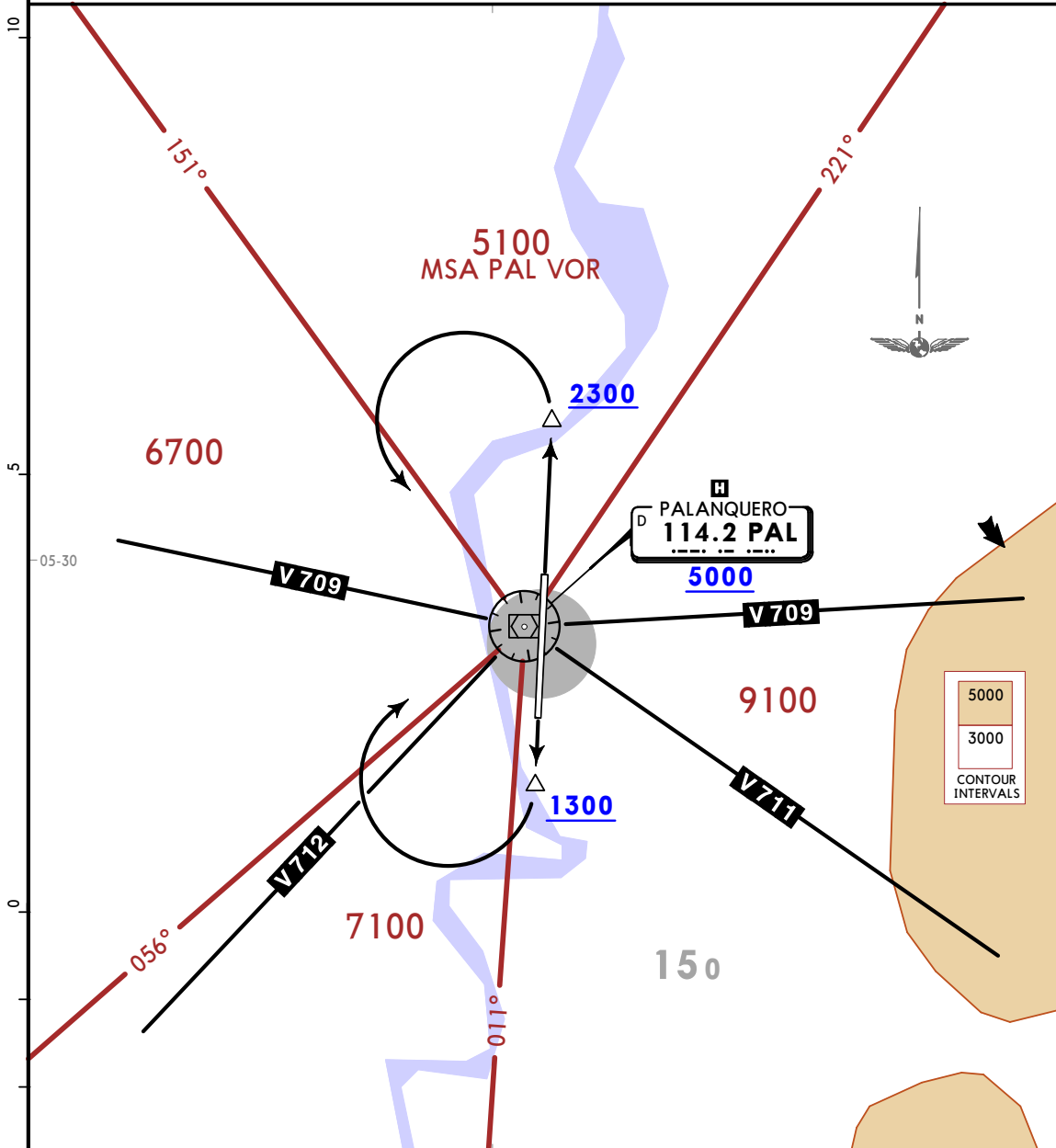
PUERTO SALGAR,
COLOMBIA

SID

Apt Elev
566

Trans alt: 18000
1. PAL VOR/DME required.
2. Turns are not allowed before DER.

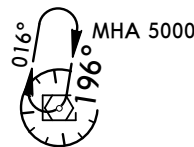
PALANQUERO 1A [PAL1A]
DEPARTURE
CAT A, B, C & D



This SID requires a minimum climb gradient:
Rwy 19: 5.6% until 2000.

| | | | | | | |
|----------------|-----|-----|-----|------|------|------|
| Gnd speed-KT | 75 | 100 | 150 | 200 | 250 | 300 |
| 5.6% V/V (fpm) | 425 | 567 | 851 | 1134 | 1418 | 1701 |

HOLDING OVER PAL VOR



| RWY | INITIAL CLIMB |
|-----|---|
| 01 | Maintain runway heading until 2300 then turn LEFT to PAL VOR at or above 5000. Climb within the PAL VOR hold to reach the MEA. |
| 19 | Maintain runway heading until 1300 then turn RIGHT to PAL VOR at or above 5000. Climb within the PAL VOR hold to reach the MEA. |

CHANGES: New airport.

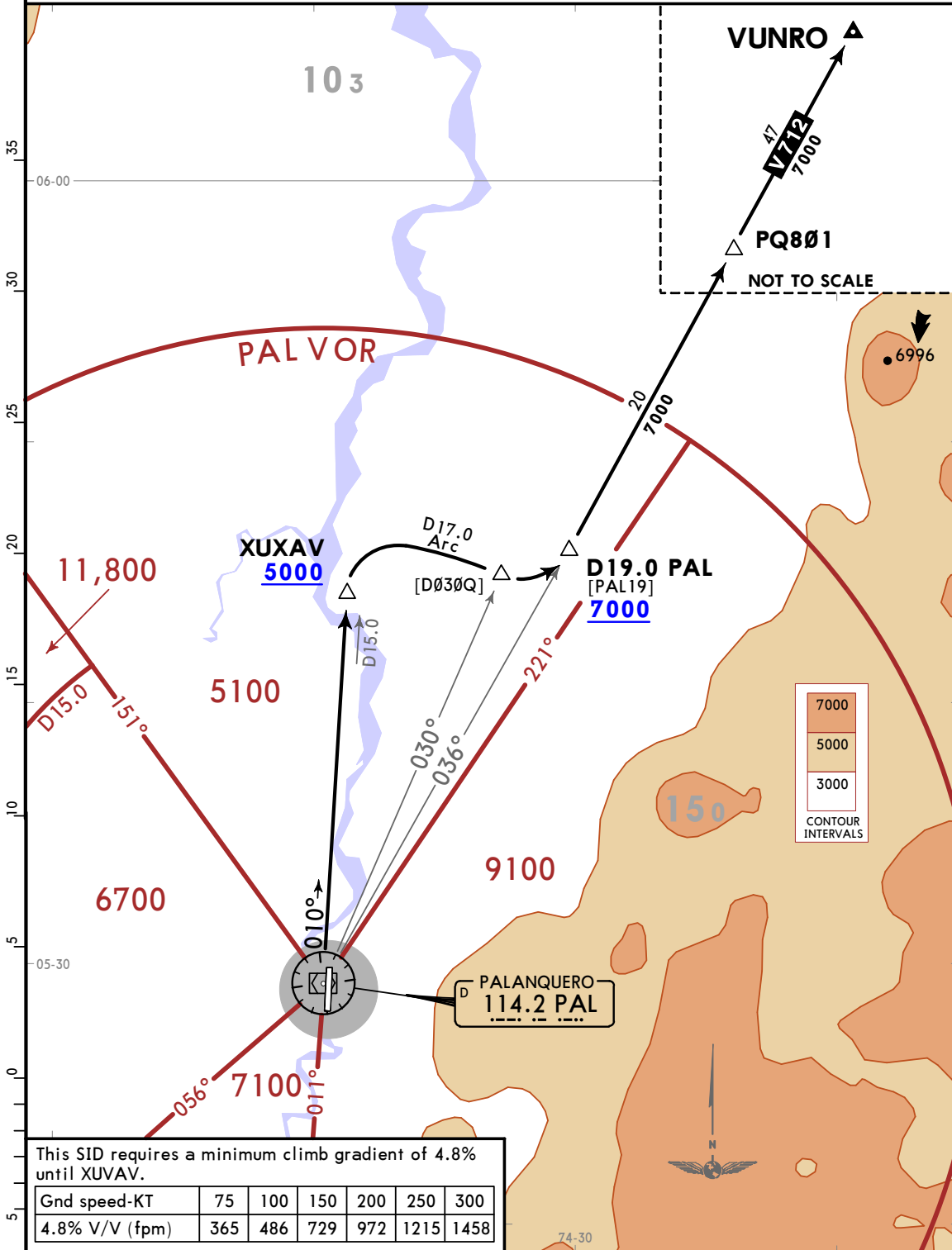
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Apt Elev
566

Trans alt: 18000
1. PAL VOR/DME required.
2. Turns are not allowed before DER.

VUNRO 1B [VUNR1B]
RWY 01 DEPARTURE

CAT A, B, C & D

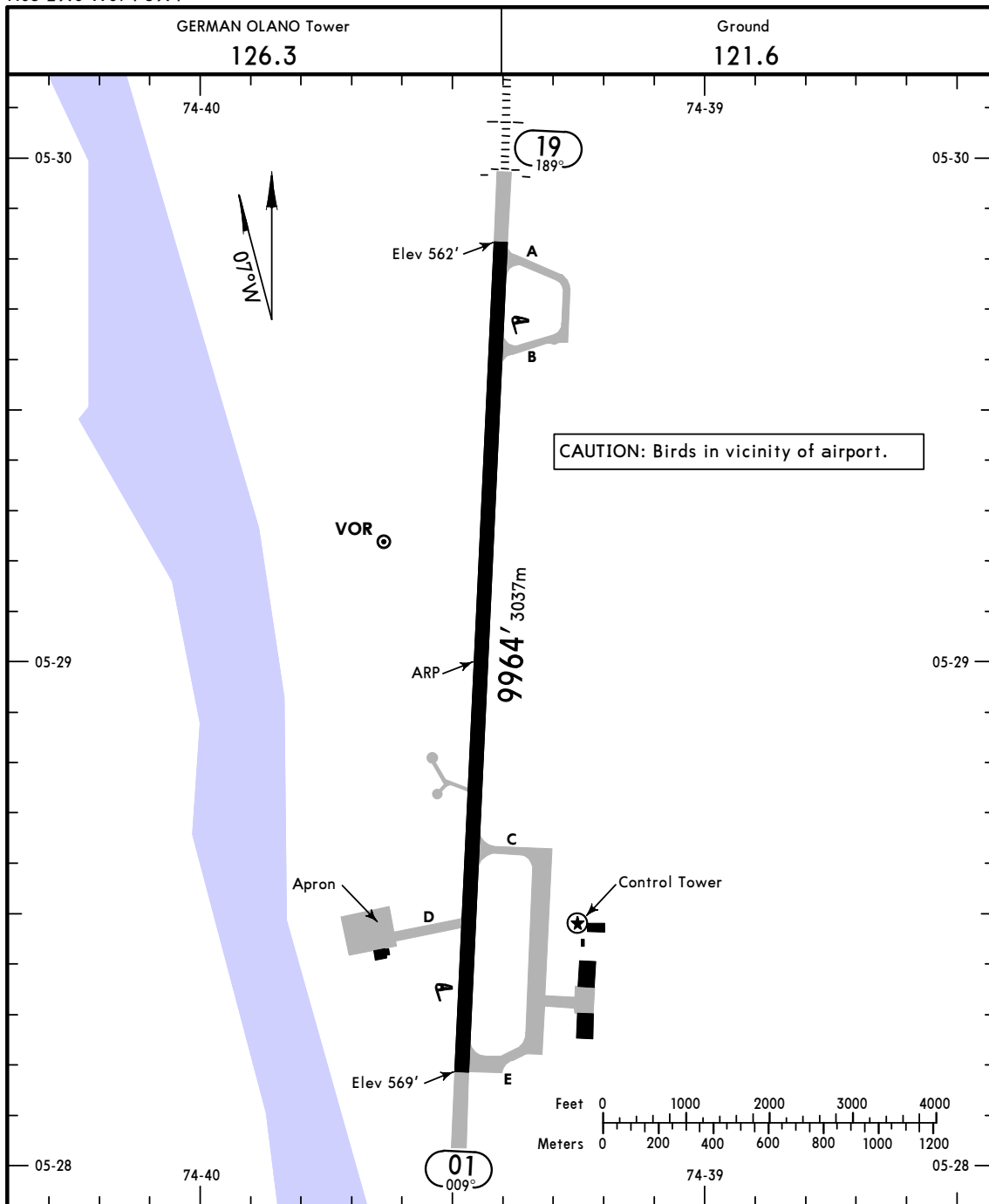


This SID requires a minimum climb gradient of 4.8% until XUVAV.

| | | | | | | |
|----------------|-----|-----|-----|-----|------|------|
| Gnd speed-KT | 75 | 100 | 150 | 200 | 250 | 300 |
| 4.8% V/V (fpm) | 365 | 486 | 729 | 972 | 1215 | 1458 |

INITIAL CLIMB

After takeoff climb on runway heading to intercept and follow PAL R010 to XUXAV at or above 5000, then turn RIGHT on D17.0 Arc to intercept and follow airway V-712 at or above 7000.



ADDITIONAL RUNWAY INFORMATION

| RWY | | USABLE LENGTHS | | | WIDTH |
|-----|---------------------------------|----------------|-------------------------------|----------|-------------|
| | | Threshold | Landing Beyond Glide Slope | TAKE-OFF | |
| 01 | RL REIL PAPI-L (angle 3.0°) | | | | 164' 50m |
| 19 | RL REIL ALS PAPI-L (angle 2.5°) | | 8846' (2696m) | | |

TAKE-OFF

All Rwys

Standard

1 & 2 Eng

3 & 4 Eng

1600m

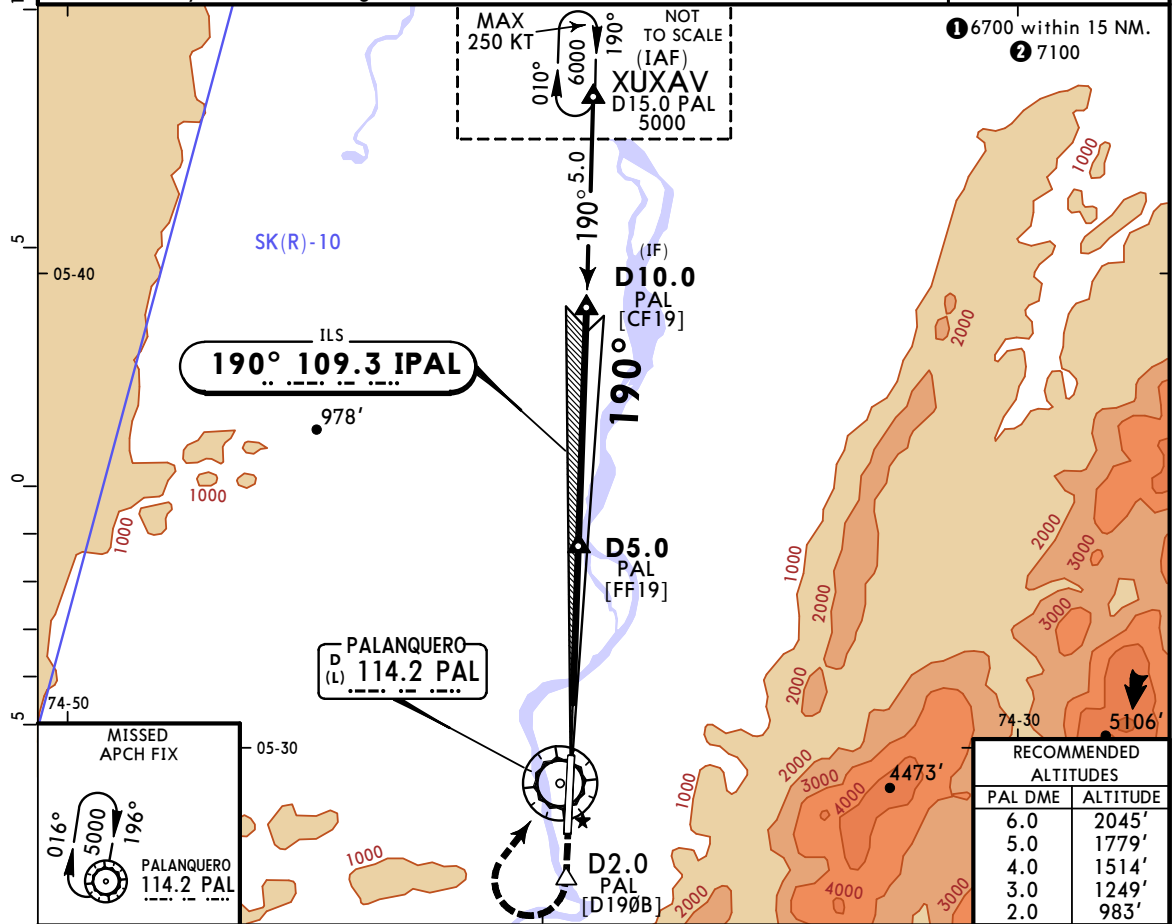
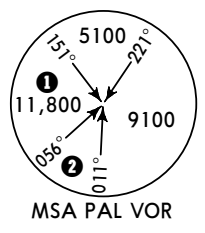
800m

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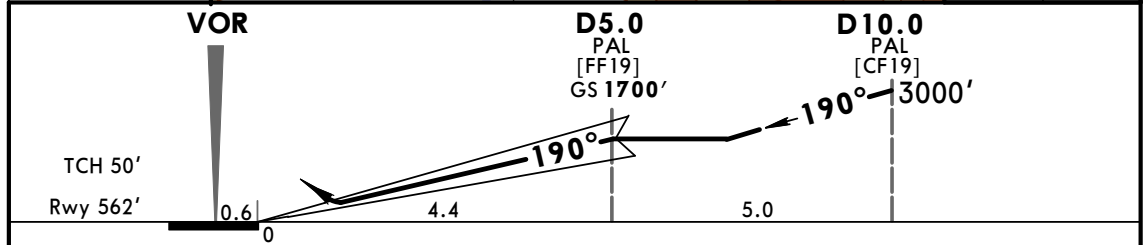
30 NOV 18
Eff 6 Dec (11-1)

JEPPESEN PUERTO SALGAR, COLOMBIA
MISSED APCH CLIMB
GRADIENT MIM 3.2%
ILS Z Rwy 19

| | | | | | |
|--|----------------------------------|--|------------------------------------|---------------------------|--|
| GERMAN OLANO Approach 126.3 | | GERMAN OLANO Tower 126.3 | | Ground 121.6 | |
| LOC IPAL 109.3 | Final Apch Crs 190° | GS D5.0 PAL 1700' (1138') | ILS DA(H) 812' (250') | Apt Elev 569' Rwy 562' | |
| MISSED APCH: Climb on runway heading to D2.0 PAL, then turn RIGHT climbing to hold at PAL VOR at 5000'. | | | | | |
| Alt Set: IN (hPa on req) | | Trans level: FL 190 | | Trans alt: 18000' | |
| 1. PAL VOR DME required. 2. Do not use the holds at XUXAV and PAL VOR simultaneously at the same flight level. | | | | | |



| RECOMMENDED ALTITUDES | |
|-----------------------|----------|
| PAL DME | ALTITUDE |
| 6.0 | 2045' |
| 5.0 | 1779' |
| 4.0 | 1514' |
| 3.0 | 1249' |
| 2.0 | 983' |



| | | | | | | | | | | |
|---------------|-------|-----|-----|-----|-----|-----|-----------------|----------|---------|----------|
| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 | ALS REIL PAPI-L | 5000' on | Rwy hdg | D2.0 PAL |
| GS | 2.50° | 310 | 398 | 442 | 531 | 707 | | | | |

| | | | | | | | | | |
|--|---------|---------------------|----------------|--|-----------------------|-----------------------|--|-------------------------------------|--|
| STRAIGHT-IN LANDING RWY 19 Missed Apch climb gradient mim 3.2% | | | | CIRCLE-TO-LAND Call for ATC instructions to enter the traffic circuit. | | | | CIRCLE-TO-LAND VISUAL TRACKS | |
| ILS DA(H) 812' (250') | | LOC (GS out) | | ECHO CAUTION: Only available from sunrise to sunset | | WHISKEY | | | |
| FULL | ALS out | ALS out | ALS out | MDA(H) | MDA(H) | | | | |
| A | | | | 100 | 1100' (531') - 2500m | | | | |
| B | 1000m | 1200m | NOT AUTHORIZED | 135 | 1700' (1131') - 5000m | | | | |
| C | | | | 180 | NOT AUTHORIZED | 1980' (1411') - 5000m | | | |
| D | | | | 205 | | | | | |

PANS OPS

CHANGES: New procedure.

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SKPQ/PAL CAT C & D

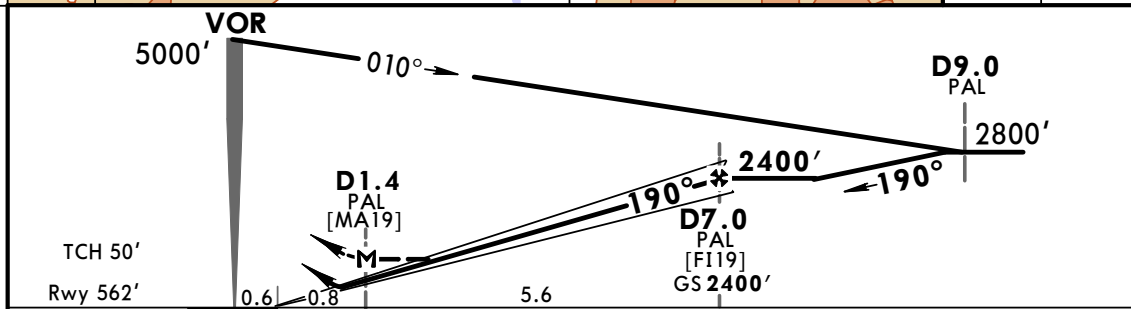
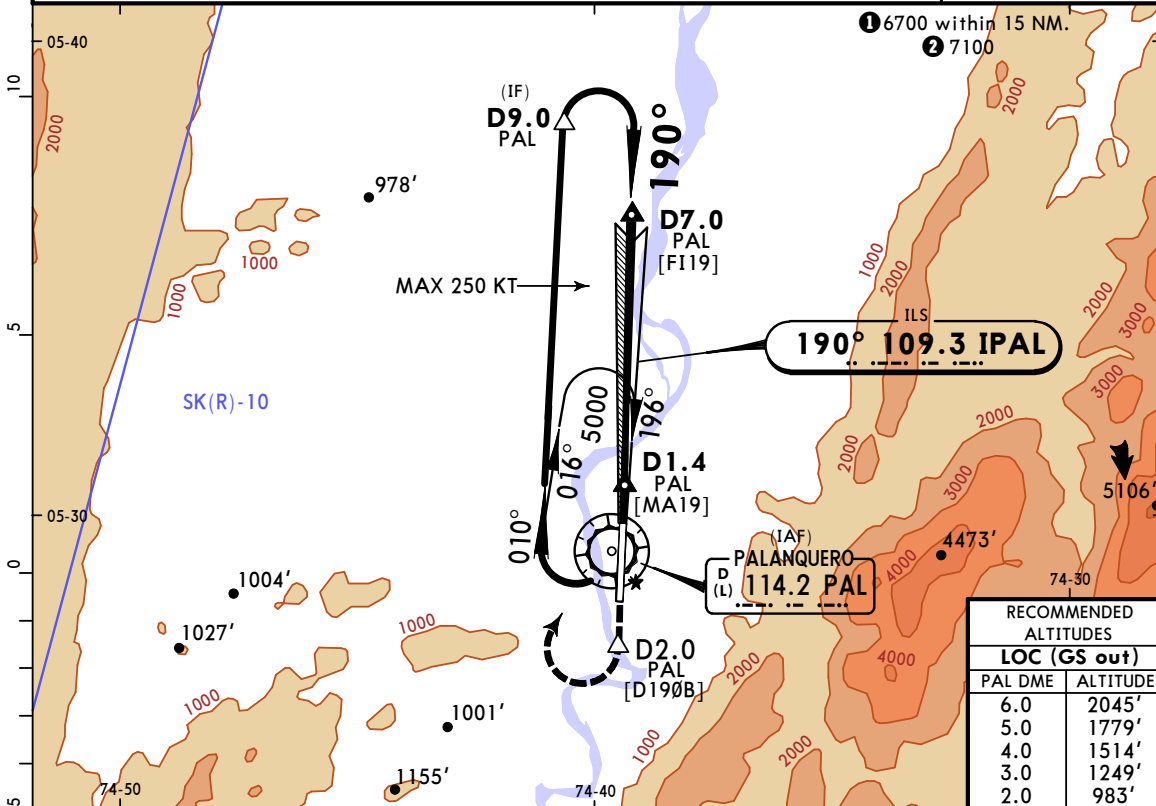
30 NOV 18
Eff 6 Dec 11-2

MISSED APCH CLIMB
GRADIENT MIM 3.2%

ILS Y or
LOC Y Rwy 19

CAPT GERMAN OLANO

| | | | | | |
|--|---------------------------|---------------------------------|-----------------------------|---------------------------|-----------------|
| GERMAN OLANO Approach 126.3 | | GERMAN OLANO Tower 126.3 | | | Ground 121.6 |
| LOC IPAL 109.3 | Final Apch Crs 190° | GS D7.0 PAL 2400' (1838') | ILS DA(H) 812' (250') | Apt Elev 569' Rwy 562' | |
| MISSED APCH: Climb on runway heading to D2.0 PAL, then turn RIGHT climbing to hold at PAL VOR at 5000'. | | | | | |
| Alt Set: IN (hPa on req) | | Trans level: FL 190 | | Trans alt: 18000' | |
| 1. PAL VOR DME required. | | | | | MSA PAL VOR |



| | | | | | | | | | |
|----------------|-------|------|------|------|------|------|-----------------|------------------|----------|
| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 | ALS REIL PAPI-L | 5000' on Rwy hdg | D2.0 PAL |
| GS | 2.50° | 310 | 398 | 442 | 531 | 707 | | | |
| MAP at D1.4 or | | | | | | | | | |
| FAF to MAP | 5.6 | 4:48 | 3:44 | 3:22 | 2:48 | 2:24 | | | |

| | | | | | |
|--|--|--|--|---|--|
| STRAIGHT-IN LANDING RWY 19 Missed Apch climb gradient mim 3.2% | | CIRCLE-TO-LAND Call for ATC instructions to enter the traffic circuit. | | CIRCLE-TO-LAND VISUAL TRACKS | |
| ILS DA(H) 812' (250') FULL ALS out | | LOC (GS out) MDA(H) 970' (408') ALS out | | ECHO CAUTION: Only available from sunrise to sunset MDA(H) | |
| NOT AUTHORIZED | | NOT AUTHORIZED | | NOT AUTHORIZED | |
| 1000m | | 1200m | | 1980' (1411') - 5000m | |

PANS OPS

CHANGES: New procedure.

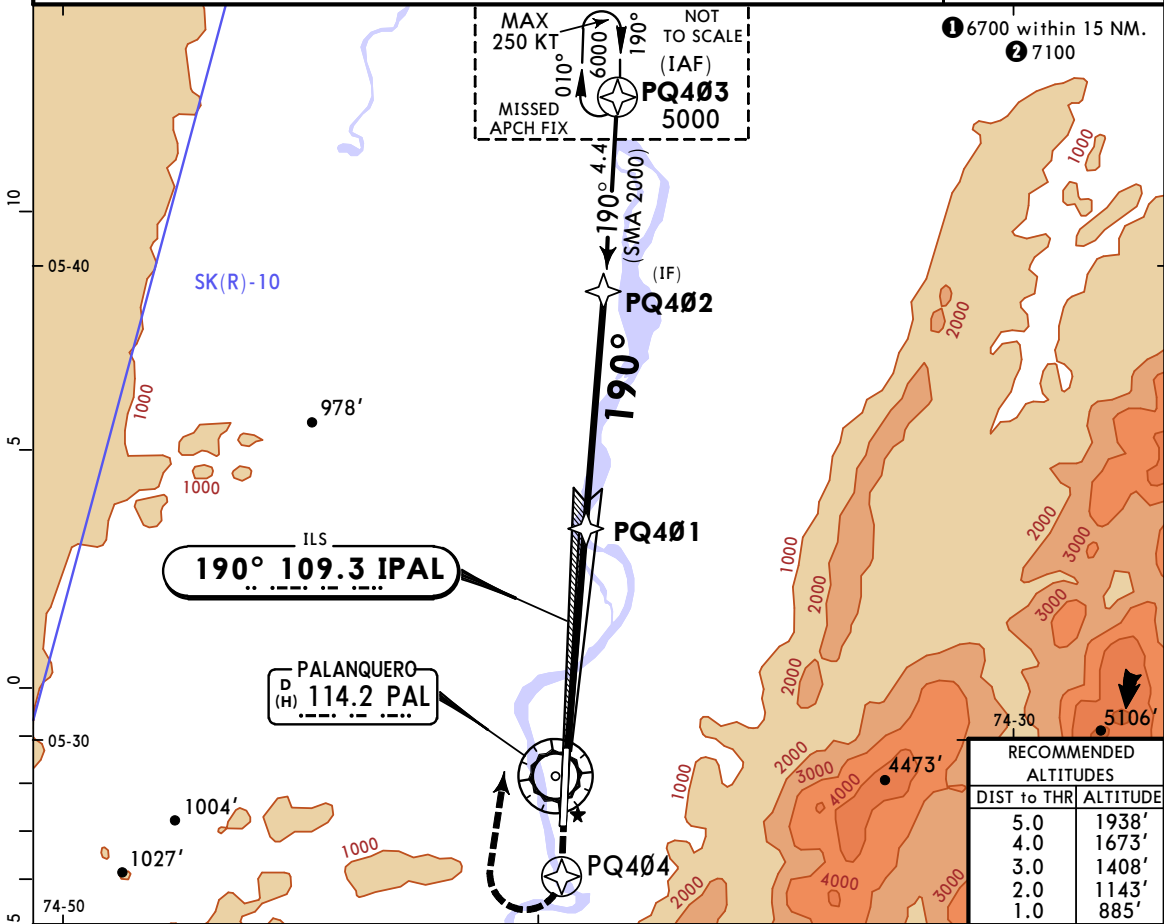
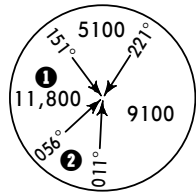
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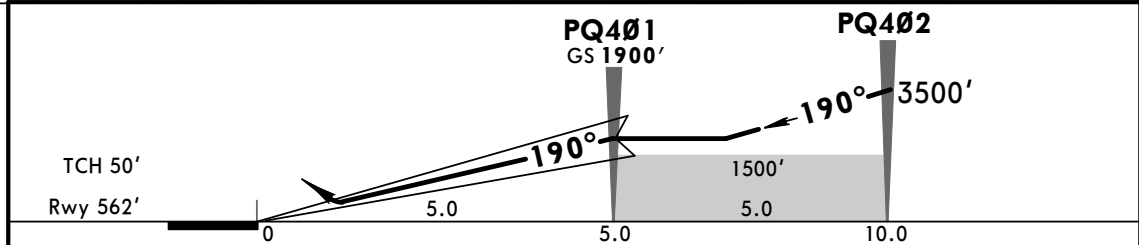
30 NOV 18
Eff 6 Dec 11-3

JEPPESEN PUERTO SALGAR, COLOMBIA
MISSED APCH CLIMB
GRADIENT MIM 3.2%
ILS X Rwy 19

| | | | | | |
|---|---------------------------|------------------------------|-----------------------------|---------------------------|--|
| GERMAN OLANO Approach 126.3 | | GERMAN OLANO Tower 126.3 | | Ground 121.6 | |
| LOC IPAL 109.3 | Final Apch Crs 190° | GS PQ401 1900' (1338') | ILS DA(H) 885' (323') | Apt Elev 569' Rwy 562' | |
| MISSED APCH: Climb on runway heading to PQ404, then turn RIGHT climbing to hold at PQ403 at 6000'. | | | | | |
| RNAV 1 | Alt Set: IN (hPa on req) | Trans level: FL 190 | Trans alt: 18000' | | |
| 1. GNSS required. | | | | | |



| RECOMMENDED ALTITUDES | |
|-----------------------|----------|
| DIST to THR | ALTITUDE |
| 5.0 | 1938' |
| 4.0 | 1673' |
| 3.0 | 1408' |
| 2.0 | 1143' |
| 1.0 | 885' |



| | | | | | | | | | | |
|---------------|-------|-----|-----|-----|-----|-----|-----------------|-------|---------|-------|
| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 | ALS REIL PAPI-L | 5000' | Rwy hdg | PQ404 |
| GS | 2.50° | 310 | 398 | 442 | 531 | 707 | | | | |

| | | | | | | |
|---|-------|--------------|---|--|----------------------------------|-----------------------|
| STRAIGHT-IN LANDING RWY 19 Missed Apch climb gradient mim 3.2% | | | CIRCLE-TO-LAND Call for ATC instructions to enter the traffic circuit. | | CIRCLE-TO-LAND VISUAL TRACKS | |
| ILS DA(H) 885' (323') | | LOC (GS out) | | ECHO CAUTION: Only available from sunrise to sunset | | |
| FULL ALS out | | ALS out | | WHISKEY | | |
| A | 1300m | 1500m | NOT AUTHORIZED | Max Kts | MDA(H) | |
| B | | | | 100 | 1700' (1131') - 5000m | 1100' (531') - 2500m |
| C | | | | 135 | NOT AUTHORIZED | 1980' (1411') - 5000m |
| D | | | | 180 | | |

SKPQ/PAL CAT A & B

JEPPESSEN PUERTO SALGAR, COLOMBIA

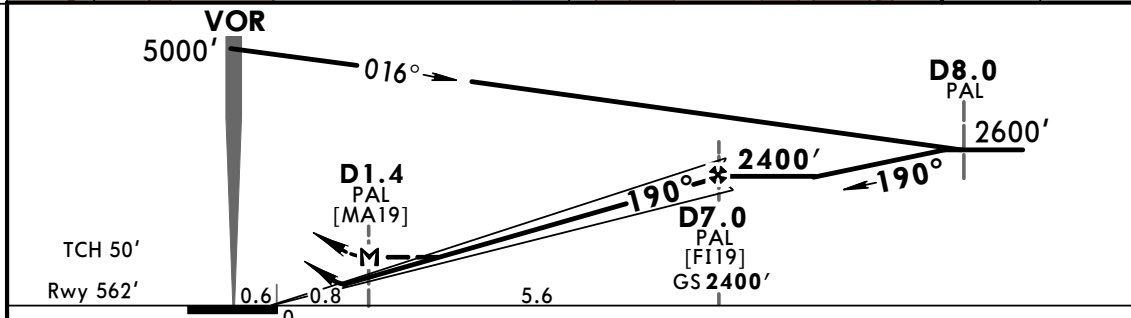
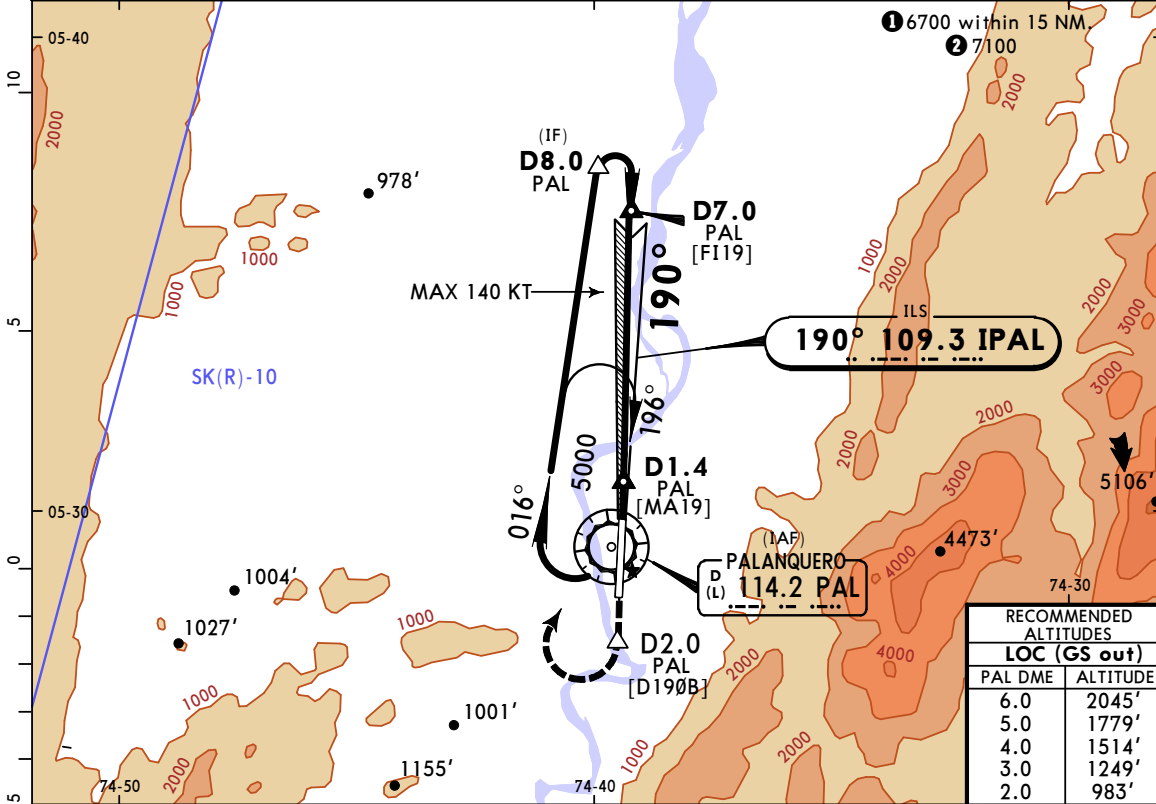
30 NOV 18 Eff 6 Dec 11-4

MISSED APCH CLIMB GRADIENT MIM 3.2%

ILS W or LOC W Rwy 19

CAPT GERMAN OLANO

| | | | | | |
|--|------------------------|---------------------------------|--------------------------|---------------------------|-----------------|
| GERMAN OLANO Approach 126.3 | | GERMAN OLANO Tower 126.3 | | | Ground 121.6 |
| LOC IPAL 109.3 | Final Apch Crs 190° | GS D7.0 PAL 2400' (1838') | ILS DA(H) 812' (250') | Apt Elev 569' Rwy 562' | |
| MISSED APCH: Climb on runway heading to D2.0 PAL, then turn RIGHT climbing to hold at PAL VOR at 5000'. | | | | | |
| Alt Set: IN (hPa on req) | | Trans level: FL 190 | | Trans alt: 18000' | |
| 1. PAL VOR DME required. | | | | | MSA PAL VOR |



| | | | | | | | | | |
|---------------------------|-----|------|------|------|------|------|-----------------|------------------|----------|
| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 | ALS REIL PAPI-L | 5000' on Rwy hdg | D2.0 PAL |
| GS 2.50° | 310 | 398 | 442 | 531 | 619 | 707 | | | |
| MAP at D1.4 or FAF to MAP | 5.6 | 4:48 | 3:44 | 3:22 | 2:48 | 2:24 | | | |

| | | | | | | |
|----------------|---|----------------|---|---------------------|---------------------------------|--|
| PANS OPS | STRAIGHT-IN LANDING RWY 19 Missed Apch climb gradient mim 3.2% | | CIRCLE-TO-LAND Call for ATC instructions to enter the traffic circuit. | | CIRCLE-TO-LAND VISUAL TRACKS | |
| | ILS | | ECHO | | WHISKEY | |
| | LOC (GS out) | | CAUTION: Only available from sunrise to sunset | | | |
| | DA(H) 812' (250') | | MDA(H) 970' (408') | | | |
| FULL ALS out | | ALS out | | Max Kts | | |
| 1000m | | 1200m | | 1700' (1131')-5000m | | |
| 1800m | | 1800m | | 1100' (531')-2500m | | |
| NOT AUTHORIZED | | NOT AUTHORIZED | | NOT AUTHORIZED | | |
| NOT AUTHORIZED | | NOT AUTHORIZED | | 1980' (1411')-5000m | | |

CHANGES: New procedure.

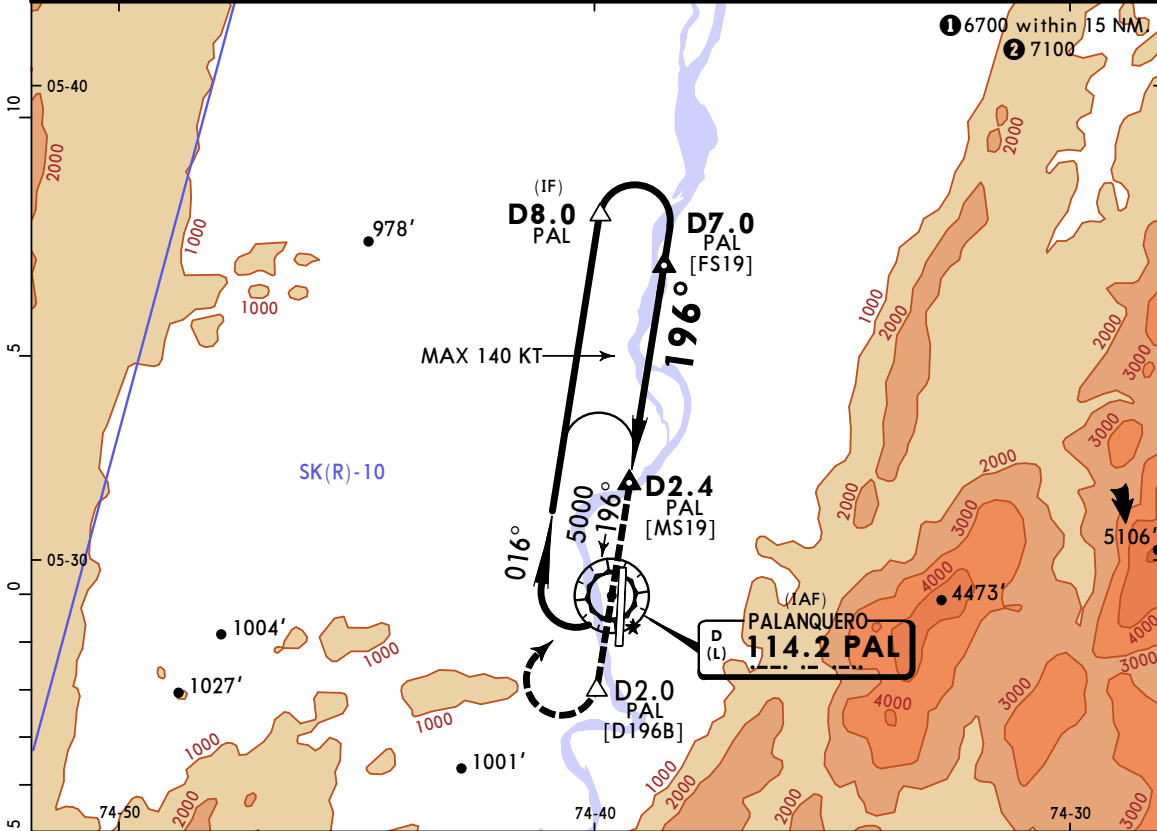
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SKPQ/PAL CAT A & B
 CAPT GERMAN OLANO

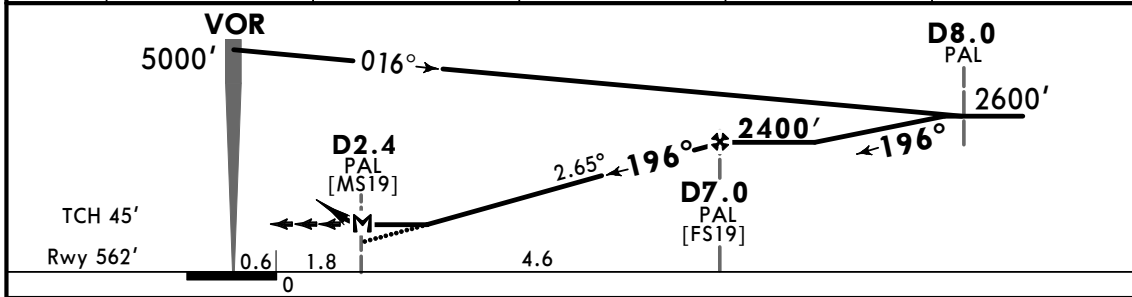
30 NOV 18
 Eff 6 Dec (13-1)

JEPPESEN PUERTO SALGAR, COLOMBIA
 MISSED APCH CLIMB GRADIENT MIM 3.2%
 VOR Z Rwy 19

| | | | | | |
|--|-------------------------------|---|-------------------------------|---------------------------|-----------------|
| GERMAN OLANO Approach 126.3 | | GERMAN OLANO Tower 126.3 | | | Ground 121.6 |
| VOR PAL 114.2 | Final Apch Crs 196° | Minimum Alt D7.0 PAL 2400' (1838') | MDA(H) 1040' (478') | Apt Elev 569' Rwy 562' | |
| MISSED APCH: Climb on heading 196° to D2.0 PAL, then turn RIGHT climbing to hold at PAL VOR at 5000'. | | | | | |
| Alt Set: IN (hPa on req) | | Trans level: FL 190 | | Trans alt: 18000' | |
| 1. PAL VOR DME required. | | | | | MSA PAL VOR |



| | | | | | |
|----------|-------|-------|-------|-------|-------|
| PAL DME | 3.0 | 4.0 | 5.0 | 6.0 | 7.0 |
| ALTITUDE | 1290' | 1570' | 1850' | 2130' | 2410' |



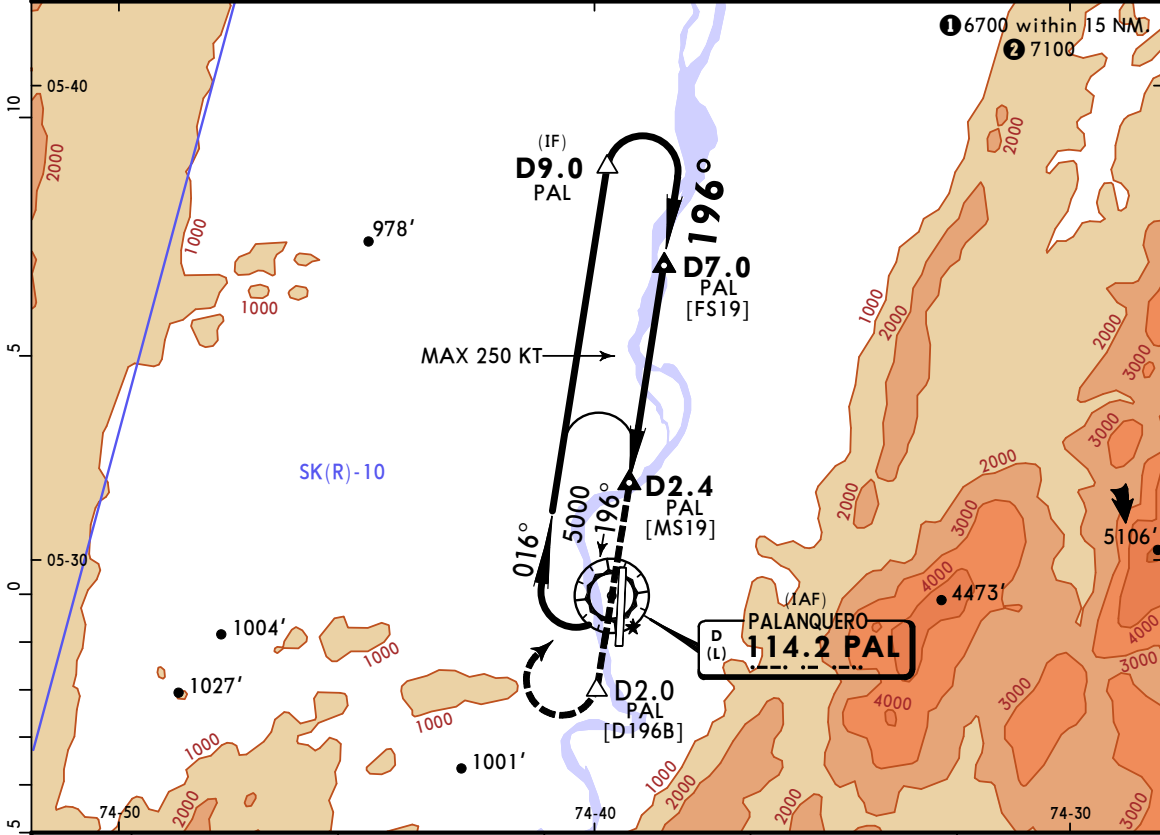
| | | | | | | | | |
|---------------------------|-------|------|------|------|------|------|--|------|
| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 | ALS REIL PAPI-L 5000' on 196° hdg D2.0 PAL | |
| Descent Angle | 2.65° | 328 | 422 | 469 | 562 | 656 | | 750 |
| MAP at D2.4 or FAF to MAP | 4.6 | 3:57 | 3:04 | 2:46 | 2:18 | 1:58 | | 1:43 |

| | | | | | |
|----------|-------------------------------------|--|---|---------------------|------------------------------|
| PANS OPS | STRAIGHT-IN LANDING RWY 19 | | CIRCLE-TO-LAND | | CIRCLE-TO-LAND VISUAL TRACKS |
| | Missed Apch climb gradient mim 3.2% | | Call for ATC instructions to enter the traffic circuit. | | |
| | MDA(H) 1040' (478') | | ECHO CAUTION: Only available from sunrise to sunset | | |
| | ALS out | | WHISKEY | | |
| A | 2200m | | Max Kts | MDA(H) | MDA(H) |
| B | | | 100 | 1700' (1131')-5000m | 1100' (531')-2500m |
| C | | | 135 | | |
| D | NOT AUTHORIZED | | 180 | NOT AUTHORIZED | 1980' (1411')-5000m |
| | | | 205 | | |

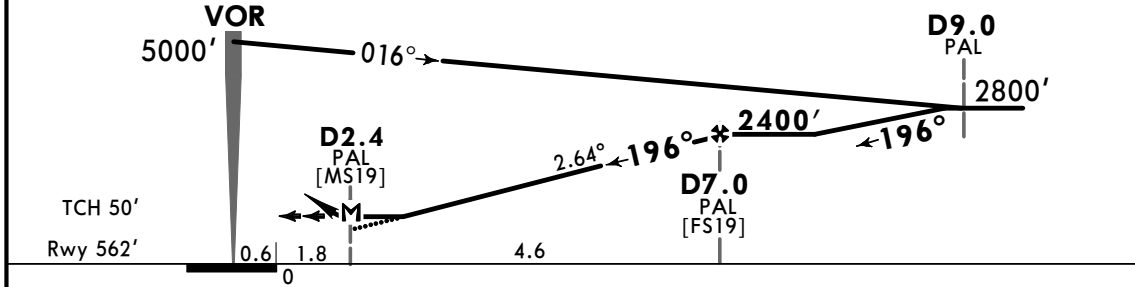
CHANGES: New procedure.

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| | | | | | |
|---|-------------------------------|---|-------------------------------|-------------------|-------------|
| GERMAN OLANO Approach 126.3 | | GERMAN OLANO Tower 126.3 | | Ground 121.6 | |
| VOR PAL 114.2 | Final Apch Crs 196° | Minimum Alt D7.0 PAL 2400' (1838') | MDA(H) 1040' (478') | Apt Elev 569' | Rwy 562' |
| MISSED APCH: Climb on heading 196° to D2.0 PAL, then turn RIGHT climbing to hold at PAL VOR at 5000'. | | | | | |
| Alt Set: IN (hPa on req) | | Trans level: FL 190 | | Trans alt: 18000' | |
| I. PAL VOR DME required. | | | | | |
| | | | | | MSA PAL VOR |



| | | | | | |
|----------|-------|-------|-------|-------|-------|
| PAL DME | 3.0 | 4.0 | 5.0 | 6.0 | 7.0 |
| ALTITUDE | 1290' | 1570' | 1850' | 2130' | 2410' |



| | | | | | | | | | | | |
|---------------------------|-----|------|------|------|------|------|-----------------|-------|------|------|----------|
| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 | ALS REIL PAPI-L | 5000' | ↑ on | 196° | D2.0 PAL |
| Descent Angle 2.64° | 327 | 420 | 467 | 560 | 654 | 747 | | | | | |
| MAP at D2.4 or FAF to MAP | 4.6 | 3:57 | 3:04 | 2:46 | 2:18 | 1:58 | | | | | |

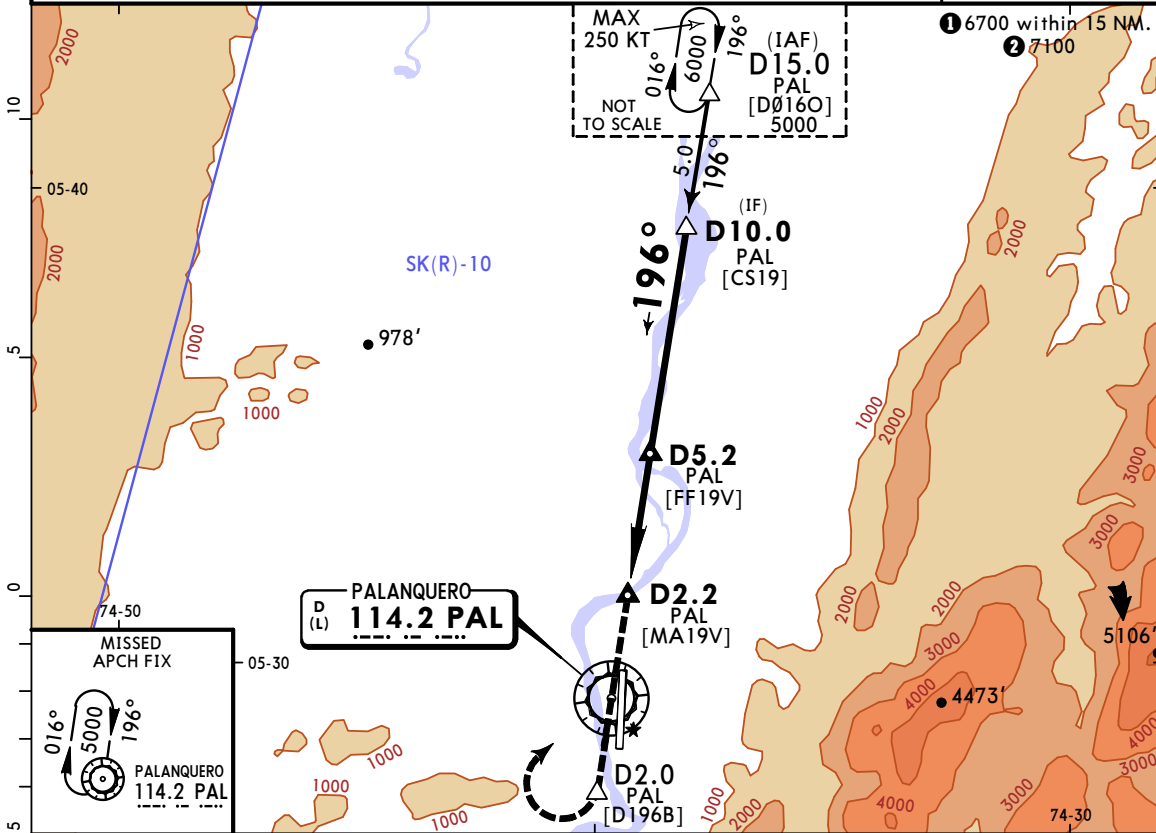
| | | | | | |
|-------------------------------------|--|---|--|------------------------------|--|
| STRAIGHT-IN LANDING RWY 19 | | CIRCLE-TO-LAND | | CIRCLE-TO-LAND VISUAL TRACKS | |
| Missed Apch climb gradient mim 3.2% | | Call for ATC instructions to enter the traffic circuit. | | | |
| MDA(H) 1040' (478') | | ECHO | | | |
| ALS out | | CAUTION: Only available from sunrise to sunset | | | |
| Max Kts | | WHISKEY | | | |
| A NOT AUTHORIZED | | MDA(H) | | | |
| B NOT AUTHORIZED | | 1700' (1131') - 5000m | | 1100' (531') - 2500m | |
| C 2700m | | NOT AUTHORIZED | | 1980' (1411') - 5000m | |
| D NOT AUTHORIZED | | NOT AUTHORIZED | | NOT AUTHORIZED | |

SKPQ/PAL
CAPT GERMAN OLANO

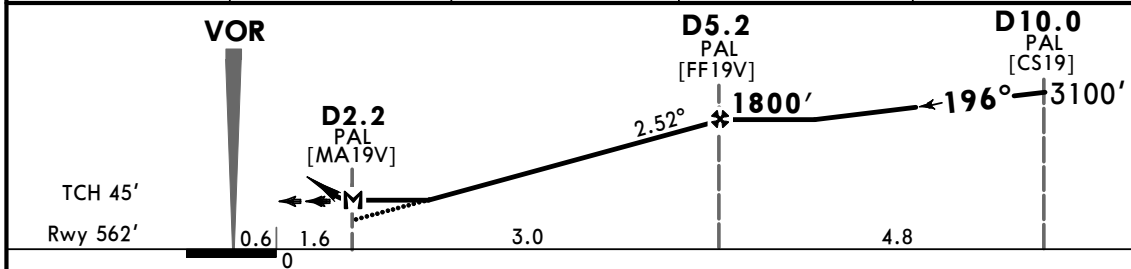
JEPPESEN
30 NOV 18
Eff 6 Dec (13-3)

PUERTO SALGAR, COLOMBIA
MISSED APCH CLIMB
GRADIENT MIM 3.2% VOR V Rwy 19

| | | | | | |
|--|-------------------------------|---|-------------------------------|---------------------------|-----------------|
| GERMAN OLANO Approach 126.3 | | GERMAN OLANO Tower 126.3 | | | Ground 121.6 |
| VOR PAL 114.2 | Final Apch Crs 196° | Minimum Alt D5.2 PAL 1800' (1238') | MDA(H) 1040' (478') | Apt Elev 569' Rwy 562' | |
| MISSED APCH: Climb on heading 196° to D2.0 PAL, then turn RIGHT climbing to hold at PAL VOR at 5000'. | | | | | |
| Alt Set: IN (hPa on req) | | Trans level: FL 190 | | Trans alt: 18000' | |
| 1. PAL VOR DME required. 2. Do not use the holds at D15.0 PAL and PAL VOR simultaneously at the same flight level. | | | | | MSA PAL VOR |



| | | | | |
|----------|-------|-------|-------|-------|
| PAL DME | 2.2 | 3.0 | 4.0 | 5.0 |
| ALTITUDE | 1040' | 1250' | 1520' | 1790' |



| | | | | | | | | | | |
|---------------------------|-----|------|------|------|------|------|-----------------|-------|----------|----------|
| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 | ALS REIL PAPI-L | 5000' | 196° hdg | D2.0 PAL |
| Descent Angle 2.52° | 312 | 401 | 446 | 535 | 624 | 713 | | | | |
| MAP at D2.2 or FAF to MAP | 3.0 | 2:34 | 2:00 | 1:48 | 1:30 | 1:17 | 1:08 | | | |

| | | | | | |
|-------------------------------------|-------|---|---------------------|------------------------------|--|
| STRAIGHT-IN LANDING RWY 19 | | CIRCLE-TO-LAND | | CIRCLE-TO-LAND VISUAL TRACKS | |
| Missed Apch climb gradient mim 3.2% | | Call for ATC instructions to enter the traffic circuit. | | | |
| MDA(H) 1040' (478') | | ECHO CAUTION: Only available from sunrise to sunset | | WHISKEY | |
| ALS out | | Max Kts | | MDA(H) | |
| A | 2200m | 100 | 1700' (1131')-5000m | 1100' (531')-2500m | |
| B | 3000m | 135 | | | |
| C | | 180 | | | |
| D | 2400m | 205 | NOT AUTHORIZED | 1980' (1411')-5000m | |

CHANGES: New procedure.

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