**GENERAL**

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| **GENERAL** | | | |
| .alt | .alt # | .alt KLAL | **KLAL** altimeter [altimeter]. |
| .oops | .oops | .oops | DISREGARD LAST TRANSMISSION. Stand by for correction... |
| .wind | .wind | .wind | wind [winds]. |
| .ws | .ws # | .ws KLAL | **KLAL** wind [winds]. |
| .shear | .shear | .shear | wind shear advisories are in effect. |
| .micro | .micro | .micro | microburst advisories are in effect. |
| .con | .con # | .con 1V | contact **Miami Approach**, **124.850** |
| .wake | .wake | .wake | caution wake turbulence. |
| .si | .si | .si | say indicated airspeed. |
| .sm | .sm | .sm | say mach number. |
| .smn | .smn | .smn | say mach number. |
| .ron | .ron | .ron | resume own navigation. |
| .cv | .cv | .cv | do you copy voice? |
| .brb | .brb # | .brb 3 | ATTENTION ALL AIRCRAFT: [callsign] will be away for approximately 3 minute(s). |
| .back | .back | .back | [callsign] has returned. |
| .prc | .prc | .prc | For explanations/questions/tips, please visit the VATSIM pilot resource center at www.vatsim.net/prc/. |
| .txt | .txt | .txt | ATTENTION TEXT PILOTS: Please ALWAYS EXECUTE instructions first, then reply if able. Thank you! |
| .newatis | .newatis # # | .newatis TANGO KLAL | ATTENTION ALL AIRCRAFT: ATIS Information **TANGO** is now current at **KLAL**. Wind [winds], **KLAL** altimeter [altimeter]. |
| .curatis | .curatis # # | .curatis TANGO KLAL | ATIS Information **TANGO** is current at **KLAL**. Advise when you have **TANGO**, **KLAL** altimeter [altimeter]. |
| .closing | .closing # | .closing 5 | \*\*\*\*NOTAM: [controller] will be closing in approximately **5** minutes. Please stand by.\*\*\*\*\* |
| .closed | .closed # | .closed 1V | \*\*\*\*NOTAM: **Miami Approach** CLOSED at [time]. Monitor unicom 122.8\*\*\*\* |
| .closedto | .closedto # | .closedto 46 | \*\*\*\*NOTAM: **Miami Approach** CLOSED at [time]. All aircraft contact **Miami Center**, **135.175**\*\*\*\* |
| .sg | .sg | .sg | when able, say gate number. |
| .sp | .sp | .sp | when able, say parking. |

**CLEARANCE DELIVERY**

|  |  |  |  |
| --- | --- | --- | --- |
| **GENERAL CLEARANCE DELIVERY** | | | |
| .cor | .cor | .cor | clearance on request, stand by. |
| .corn | .corn # | .corn 1 | clearance on request, stand by, number **1**. |
| .iafdofw | .iafdofw | .iafdofw | filed altitude of [cruise] invalid for direction of flight. Please choose any EVEN altitude, and either advise this frequency of your choice, or re-file your flight plan. |
| .iafdofe | .iafdofe | .iafdofe | filed altitude of [cruise] invalid for direction of flight. Please choose any ODD altitude, and either advise this frequency of your choice, or re-file your flight plan. |
| .craft | .craft # # | .craft 5000 1V | cleared to [destination] airport as filed. Climb and maintain **5000**, expect [cruise] one-zero minutes after departure, departure frequency **124.850**, squawk [squawk]. |
| .craftu | .craftu # | .craftu 5000 | cleared to [destination] airport as filed. Climb and maintain **5000**, expect [cruise] one-zero minutes after departure. Departure control services are not available, squawk [squawk]. |
| .crafts | .crafts # # # | .crafts HEDLY2 5000 1V | cleared to [destination] airport, **HEDLY2** departure, then as filed. Climb and maintain **5000**, expect [cruise] one-zero minutes after departure, departure frequency **124.850**, squawk [squawk]. |
| .craftsu | .craftsu # # | .craftsu HEDLY2 5000 | cleared to [destination] airport, **HEDLY2** departure, then as filed. Climb and maintain **5000**, expect [cruise] one-zero minutes after departure. Departure control services are not available, squawk [squawk]. |
| .craftscvs | .craftscvs # # | .craftscvs HEDLY2 1V | cleared to [destination] airport, **HEDLY2** departure, then as filed. Climb via SID, departure frequency **124.850**, squawk [squawk]. |
| .craftscvse | .craftscvse # # # | .craftscvse HEDLY2 5000 1V | cleared to [destination] airport, **HEDLY2** departure, then as filed. Climb via SID, except maintain **5000**. Expect [cruise] one-zero minutes after departure, departure frequency **124.850**, squawk [squawk]. |
| .craftst | .craftst # # # # | .craftst HITAG2 HEDLY 5000 1V | cleared to [destination] airport, **HITAG2** departure, **HEDLY** transition, then as filed. Climb and maintain **5000**, expect [cruise] one-zero minutes after departure, departure frequency **124.850**, squawk [squawk]. |
| .craftstu | .craftstu # # # | .craftstu HITAG2 HEDLY 5000 | cleared to [destination] airport, **HITAG2** departure, **HEDLY** transition, then as filed. Climb and maintain **5000**, expect [cruise] one-zero minutes after departure. Departure control services are not available, squawk [squawk]. |
| .craftstcvs | .craftstcvs # # # | .craftstcvs HITAG2 HEDLY 1V | cleared to [destination] airport, **HITAG2** departure, **HEDLY** transition, then as filed. Climb via SID. Departure frequency **124.850**, squawk [squawk]. |
| .craftstcvse | .craftstcvse # # # # | .craftstcvse HITAG2 HEDLY 5000 1V | cleared to [destination] airport, **HITAG2** departure, **HEDLY** transition, then as filed. Climb via SID except maintain **5000**. Expect [cruise] one-zero minutes after departure, departure frequency **124.850**, squawk [squawk]. |
| .craftv | .craftv # # # | .craftv HEDLY 5000 1V | cleared to [destination] airport via radar vectors **HEDLY**, then as filed. Climb and maintain **5000**, expect [cruise] one-zero minutes after departure, departure frequency **124.850**, squawk [squawk]. |
| .craftvu | .craftvu # # | .craftvu HEDLY 5000 | cleared to [destination] airport via direct **HEDLY**, then as filed. Climb and maintain **5000**, expect [cruise] one-zero minutes after departure. Departure control services are not available, squawk [squawk]. |
| .depfreq | .depfreq # | .depfreq 1V | new departure frequency: **Miami Approach** on **124.850**. |
| .depna | .depna | .depna | departure services are no longer available. After departure, monitor unicom 122.8. |
| .rbc | .rbc | .rbc | readback correct. Push and start at pilot's discretion. Advise when ready to taxi. |
| .rbce | .rbce # | .rbce 8R | readback correct. Push and start at pilot's discretion. Expect Runway **8R**. Advise when ready to taxi. |
| .rbcc | .rbcc # | .rbcc G1 | readback correct. Push and start at pilot's discretion. Contact **Miami Ground** on **121.800** when ready to taxi. |
| .rbcu | .rbcu | .rbcu | readback correct. Push and start at pilot's discretion. Advise UNICOM on 122.800 when ready to taxi. |
| .rbchp | .rbchp | .rbchp | readback correct. HOLD PUSH for traffic. Advise when ready to push. |
| .rbchpe | .rbchpe # | .rbchpe 8R | readback correct. HOLD PUSH for traffic. Advise when ready to push. Expect Runway **8R**. |
| .rbchpc | .rbchpc # | .rbchpc G1 | readback correct. HOLD PUSH, and advise **Miami Ground** on **121.800** when ready to push. |

**PRE-DEPARTURE CLERANCES**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PDC FOR ROUTING “AS FILED” 1 2** | | | | | |
| **.pdcaf** | .pdcaf # # # | .pdcp 5000 1V G1 | \*PRE-DEPARTURE CLEARANCE START\*||[callsign] ||[time] Z||[origin]-[destination])||SQUAWK [squawk]||ALT: MAINTAIN **5000**, EXP [cruise] 10 MIN AFT DP||DPFRQ: **124.850**||CTC **121.800** FOR TAXI||RTE APPROVED AS FILED: [route] ||\*PRE-DEPARTURE CLEARANCE END\* | | |
| .pdcmaf | .pdcmaf # # | .pdcmaf 1V G1 | MIA | | same as .pdcaf, except the altitude is hard-coded |
| .pdctaf | ↑ | ↑ | TPA | |
| .pdcpaf | PBI | |
| .pdcraf | RSW | |
| .pdcfaf | FLL | |
| **PDC FOR FULL ROUTE CLEARANCES 1 2** | | | | | |
| **.pdcfrc** | .pdcfrc # # # | .pdcfrc 5000 1V G1 | \*PRE-DEPARTURE CLEARANCE START\*||[aircraft] ||[time] Z||[origin]-[destination]||SQUAWK [squawk] ||ALT: MAINTAIN **5000**, EXP [cruise] 10 MIN AFT DP||DPFRQ: **124.850**||CTC **121.800** FOR TAXI||THE FLWG IS A FULL-RTE CLRNC, AND DIFFERS FROM YOUR REQD RTE. REPLY "ACCEPT" OR "UNABLE" TO ACKNOWLEDGE THIS CHANGE. NEW RTE: [route]||\*PRE-DEPARTURE CLEARANCE END\* | | |
| .pdcmfrc | .pdcmfrc # # | .pdcmfrc 1V G1 | MIA | | same as .pdcfrc, except the altitude is hard-coded |
| .pdctfrc | ↑ | ↑ | TPA | |
| .pdcpfrc | PBI | |
| .pdcrfrc | RSW | |
| .pdcffrc | FLL | |
| **PDC FOR PARTIAL ROUTE AMENDMENTS 1 2** | | | | | |
| **.pdcrteto** | .pdcrteto # # # # | .pdcrteto 5000 ORL 1V G1 | \*PRE-DEPARTURE CLEARANCE START\*||[callsign] ||[time] Z||[origin]-[destination]||SQUAWK [squawk] ||ALT: MAINTAIN **5000**, EXP [cruise]10 MIN AFT DP||DPFRQ: **124.850**||CTC **121.800** FOR TAXI||THE FLWG CONTAINS A PARTIAL RTE AMDMT. AFTER "**ORL**", RTE IS AS FILED. REPLY "ACCEPT" OR "UNABLE" TO ACKNOWLEDGE THIS CHANGE. NEW RTE: [route]||\*PRE-DEPARTURE CLEARANCE END\* | | |
| .pdcmrteto | .pdcmrteto # # # | .pdcmrteto ORL 1V G1 | MIA | same as .pdcrteto, except the altitude is hard-coded | |
| .pdctrteto | ↑ | ↑ | TPA |
| .pdcprteto | PBI |
| .pdcrrteto | RSW |
| .pdcfrteto | FLL |

*1Amened “PD” to the end of a PDC alias to indicate pushback is at the pilot’s discretion.*

*2Amend “CFP” to the end of a PDC alias to indicate the pilot must call the second controller listed for pushback.*

**GROUND**

|  |  |  |  |  |  |  |
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| **GENERAL TAXI** | | | | | **Separate sequential taxiways with hyphens. Example: .tv Y1-Y-M** | |
| .tlo | .tlo # | .tlo Y | turn LEFT on **Y**. | | |
| .tlosp | .tlosp # | .tlo Y | turn LEFT on **Y**, say parking. | | |
| .tlocon | .tlocon # # | .tlo Y 1S | turn LEFT on **Y**, contact **APT\_GND**, **121.800** when off. | | |
| .tlotp | .tlotp # # | .tlotp Y A-B-B7 | turn LEFT on **Y**, taxi to parking via **A-B-B7**. | | |
| .tlotphs | .tlotphs # # # | .tlotp Y A-B-B7 T | turn LEFT on **Y**, taxi to parking via **A-B-B7**, hold short of **T**. | | |
| .tlotpcr | .tlotpcr # # # | .tlotpcr Y A-B-B7 1R | turn LEFT on **Y**, taxi to parking via **A-B-B7**, cross runway **1R**. | | |
| .tro | .tro # | .tro Y | turn RIGHT on **Y**. | | |
| .trosp | .trosp # | .tro Y | turn RIGHT on **Y**, say parking. | | |
| .trocon | .trocon # # | .tro Y G1 | turn RIGHT on **Y**, contact **Miami Ground**, **121.800** when off. | | |
| .trotp | .trotp # # | .trotp Y A-B-B7 | turn RIGHT on **Y**, taxi to parking via **A-B-B7**. | | |
| .trotphs | .trotphs # # # | .trotp Y A-B-B7 T | turn RIGHT on **Y**, taxi to parking via **A-B-B7**, hold short of **T**. | | |
| .trotpcr | .trotpcr # # # | .trotpcr Y A-B-B7 1R | turn RIGHT on **Y**, taxi to parking via **A-B-B7**, cross runway **1R**. | | |
| .tv | .tv # | .tv A-B-B7 | taxi via **A-B-B7**. | | |
| .tvhs | .tvhs # # | .tvhs A-B-B7 P | taxi via **A-B-B7**, hold short of **P**. | | |
| .tf | .tf # # # | .tf AMERICAN A320 RIGHT | follow the **AMERICAN A320** from the **RIGHT** | | |
| .tfhs | .tfhs # # # # | .tfhs AMERICAN A320 RIGHT P | follow the **AMERICAN A320** from the **RIGHT**, hold short of **P** | | |
| .tsa | .tsa | .tsa | taxi straight ahead | | |
| .tsahs | .tsahs # | .tsahs P | Taxi straight ahead, hold short of **P** | | |
| **DEPARTURE TAXI** | | | | **Separate sequential taxiways with hyphens. Example: .trhs 8R Y2-JJ-M N** | |
| .tr | .tr # # | .tr 8R A-B-B7 | Runway **8R**, taxi via **A-B-B7**. | | |
| .trhs | .trhs # # # | .trhs 8R A-B-B7 JJ | Runway **8R**, taxi via **A-B-B7**, hold short of **JJ**. | | |
| .trcr | .trcr # # # | .trcr 1R A-B-B7 28 | Runway **1R**, taxi via **A-B-B7**, cross Runway **28**. | | |
| .trf | .trf # # # # | .trf 8R AMERICAN A320 LEFT | Runway **8R**, follow the **AMERICAN** **A320** from the **LEFT**. | | |
| .trfhs | .trfhs # # # # # | .trfhs 8R AMERICAN A320 LEFT JJ | Runway **8R**, follow the **AMERICAN** **A320** from the **LEFT**. Hold short of **JJ**. | | |
| .trfcr | .trfcr # # # # # | .trfcr 1R AMERICAN A320 LEFT 28 | Runway **1R**, follow the **AMERICAN** **A320** from the **LEFT**. Cross Runway **28**. | | |
| **ARRIVAL TAXI** | | | | **Separate sequential taxiways with hyphens. Example: .tp M-Y** | |
| .tp | .tp # | .tp A-B-B7 | taxi to parking via **A-B-B7**. | | |
| .tphs | .tphs # # | .tphs A-B-B7 JJ | taxi to parking via **A-B-B7**, hold short of **JJ**. | | |
| .tpcr | .tpcr # # | .tpcr A-B-B7 28 | taxi to parking via **A-B-B7**, cross Runway **28**. | | |
| .er | .er | .er | exit RIGHT when able, remain this frequency. | | |
| .ersg | .ersg | .ersg | exit RIGHT when able, then say gate number. | | |
| .ersp | .ersp | .ersp | exit RIGHT when able, then say parking. | | |
| .ercon | .ercon # | .ercon G1 | exit RIGHT when able, then contact **Miami Ground**, **121.800** when off. | | |
| .ertp | .ertp # | .ertp A-B-B7 | exit RIGHT when able, then taxi to parking via **A-B-B7**. | | |
| .ertphs | .ertphs # # | .ertphs A-B-B7 N8 | exit RIGHT when able, then taxi to parking via **A-B-B7**, hold short of **N8**. | | |
| .ertpcr | .ertpcr # # | .ertpcr A-B-B7 28 | exit RIGHT when able, then taxi to parking via **A-B-B7**, cross Runway **28**. | | |
| .ertro | .ertro # | .ertro M | exit RIGHT when able, then turn RIGHT on **M**, remain this frequency. | | |
| .ertrosg | .ertrosg # | .ertrosg M | exit RIGHT when able, then turn RIGHT on **M**, remain this frequency. When able, say gate number. | | |
| .ertrosp | .ertrosp # | .ertrosp M | exit RIGHT when able, then turn RIGHT on **M**, remain this frequency. When able, say parking. | | |
| .ertrohs | .ertrohs # # | .ertrohs M N | exit RIGHT when able, then turn RIGHT on **M**, hold short of **N**, remain this frequency. | | |
| .ertrohssg | .ertrohssg # # | .ertrohssg M N | exit RIGHT when able, then turn RIGHT on **M**, hold short of **N**, remain this frequency. When able, say gate number. | | |
| .ertrohssp | .ertrohssp # # | .ertrohssp M N | exit RIGHT when able, then turn RIGHT on **M**, hold short of **N**, remain this frequency. When able, say parking. | | |
| .ertlo | .ertlo # | .ertlo M | exit RIGHT when able, then turn LEFT on **M**, remain this frequency. | | |
| .ertlosg | .ertlosg # | .ertlosg M | exit RIGHT when able, then turn LEFT on **M**, remain this frequency. When able, say gate number. | | |
| .ertlosp | .ertlosp # | .ertlosp M | exit RIGHT when able, then turn LEFT on **M**, remain this frequency. When able, say parking. | | |
| .ertlohs | .ertlohs # # | .ertlohs M N | exit RIGHT when able, then turn LEFT on **M**, hold short of **N**, remain this frequency. | | |
| .ertlohssg | .ertlohssg # # | .ertlohssg M N | exit RIGHT when able, then turn LEFT on **M**, hold short of **N**, remain this frequency. When able, say gate number. | | |
| .ertlohssp | .ertlohssp # # | .ertlohssp M N | exit RIGHT when able, then turn LEFT on **M**, hold short of **N**, remain this frequency. When able, say parking. | | |
| .el | .el | .el | exit LEFT when able, remain this frequency. | | |
| .elsg | .elsg | .elsg | exit LEFT when able, then say gate number. | | |
| .elsp | .elsp | .elsp | exit LEFT when able, then say parking. | | |
| .elcon | .elcon # | .elcon G1 | exit LEFT when able, then contact **Miami Ground**, **121.800** when off. | | |
| .eltp | .eltp # | .eltp A-B-B7 | exit LEFT when able, then taxi to parking via **A-B-B7**. | | |
| .eltphs | .eltphs # # | .eltphs A-B-B7 N8 | exit LEFT when able, then taxi to parking via **A-B-B7**, hold short of **N8**. | | |
| .eltpcr | .eltpcr # # | .eltpcr A-B-B7 28 | exit LEFT when able, then taxi to parking via **A-B-B7**, cross Runway **28**. | | |
| .eltro | .eltro # | .eltro M | exit LEFT when able, then turn RIGHT on **M**, remain this frequency. | | |
| .eltrosg | .eltrosg # | .eltrosg M | exit LEFT when able, then turn RIGHT on **M**, remain this frequency. When able, say gate number. | | |
| .eltrosp | .eltrosp # | .eltrosp M | exit LEFT when able, then turn RIGHT on **M**, remain this frequency. When able, say parking. | | |
| .eltrohs | .eltrohs # # | .eltrohs M N | exit LEFT when able, then turn RIGHT on **M**, hold short of **N**, remain this frequency. | | |
| .eltrohssg | .eltrohssg # # | .eltrohssg M N | exit LEFT when able, then turn RIGHT on **M**, hold short of **N**, remain this frequency. When able, say gate number. | | |
| .eltrohssp | .eltrohssp # # | .eltrohssp M N | exit LEFT when able, then turn RIGHT on **M**, hold short of **N**, remain this frequency. When able, say parking. | | |
| .eltlo | .eltlo # | .eltlo M | exit LEFT when able, then turn LEFT on **M**, remain this frequency. | | |
| .eltlosg | .eltlosg # | .eltlosg M | exit LEFT when able, then turn LEFT on **M**, remain this frequency. When able, say gate number. | | |
| .eltlosp | .eltlosp # | .eltlosp M | exit LEFT when able, then turn LEFT on **M**, remain this frequency. When able, say parking. | | |
| .eltlohs | .eltlohs # # | .eltlohs M N | exit LEFT when able, then turn LEFT on **M**, hold short of **N**, remain this frequency. | | |
| .eltlohssg | .eltlohssg # # | .eltlohssg M N | exit LEFT when able, then turn LEFT on **M**, hold short of **N**, remain this frequency. When able, say gate number. | | |
| .eltlohssp | .eltlohssp # # | .eltlohssp M N | exit LEFT when able, then turn LEFT on **M**, hold short of **N**, remain this frequency. When able, say parking. | | |
| **CROSSING & HOLDING** | | | | **Separate sequential taxiways with hyphens. Example: .crtv 8R A-B-B7** | |
| .stop | .stop | .stop | hold position. | | |
| .hs | .hs # | .hs Y | hold short of **Y**. | | |
| .hsnt | .hsnt | .hsnt | hold short of next taxiway. | | |
| .cr | .cr # | .cr 28 | cross Runway **28**. | | |
| .crhs | .crhs # # | .crhs 28 Y | cross Runway **28**, hold short of **Y**. | | |
| .crtv | .crtv # # | .crtv 8R A-B-B7 | cross Runway **8R**, taxi via **A-B-B7**. | | |
| .crtvhs | .crtvhs # # # | .crtvhs 8R A-B-B7 Z | cross Runway **8R**, taxi via **A-B-B7**, hold short of **Z**. | | |
| .crtf | .crtf # # # # | .crtf 8R AMERICAN A320 RIGHT | cross Runway **8R**, follow the **AMERICAN** **A320** from the **RIGHT**. | | |
| .crtfhs | .crtfhs # # # # # | .crtfhs 8R AMERICAN A320 RIGHT JJ | cross Runway **8R**, follow the **AMERICAN** **A320** from the **RIGHT**, hold short of **JJ**. | | |
| .crtp | .crtp # # | .crtp 28 A-B-B7 | cross Runway **28**, taxi to parking via **A-B-B7**. | | |
| .ct | .ct | .ct | continue taxi. | | |
| .ctp | .ctp | .ctp | taxi to parking. | | |
| .ctg | .ctg | .ctg | taxi to the gate. | | |
| .ctr | .ctr | .ctr | taxi to the ramp. | | |
| .cths | .cths # | .cths Y | continue taxi, hold short of **Y**. | | |
| .hpt | .hpt | .hpt | hold push for traffic. | | |
| .hpq | .hpq | .hpq | hold push, you are in the queue. | | |
| .hpqn | .hpqn # | .hpqn 2 | hold push, you are number **2** in the queue. | | |
| .push | .push # | .push NORTH | Push approved, face **NORTH**. Advise when ready to taxi. | | |
| .pusht | .pusht # | .pusht EAST | Push approved, tail **EAST**. Advise when ready to taxi. | | |
| .pushc | .pushc # # | .pushc EAST G1 | Push approved, face **EAST**. Contact **Miami Ground** on **121.800** when ready for taxi. | | |
| .pushtc | .pushtc # # | .pushtc EAST G1 | Push approved, tail **EAST**. Contact **Miami Ground** on **121.800** when ready for taxi. | | |
| .gmie | .gmie # | .gmie G1 | ATTENTION ALL AIRCRAFT: Ground metering is in effect. Contact **Miami Ground** on **121.800** when ready to push. | | |
| **PROGRESSIVE TAXI** | | | | | |
| .tlnt | .tlnt | .tlnt | turn left next taxiway. | | |
| .tlnths | .tlnths # | .tlnths Y | turn left next taxiway, hold short of **Y**. | | |
| .tlntcr | .tlntcr # | .tlntcr 28 | turn left next taxiway, cross Runway **28**. | | |
| .trnt | .trnt | .trnt | turn right next taxiway. | | |
| .trnths | .trnths # | .trnths Y | turn right next taxiway, hold short of **Y**. | | |
| .trntcr | .trntcr # | .trntcr 28 | turn right next taxiway, cross Runway **28**. | | |

**TOWER**

|  |  |  |  |
| --- | --- | --- | --- |
| **ARRIVALS** | | | |
| .cl | .cl # | .cl 8R | wind [winds], Runway **8R**, cleared to land. |
| .cln | .cln # # | .cln 8R 2 | wind [winds], Runway **8R**, cleared to land, number **2**. |
| .clnf | .clnf # # # # | .clnf 8R 2 C172 1 | wind [winds], Runway **8R**, cleared to land, number **2**, following a **C172** on a **1** mile final. |
| .clwta | .clwta # # | .clwta 8R B747 | wind [winds], Runway **8R**, cleared to land. Caution wake turbulence arrived **B747**. |
| .clwtd | .clwtd # # | .clwtd 8R B747 | wind [winds], Runway **8R**, cleared to land. Caution wake turbulence departed **B747**. |
| .clwtad | .clwtad # # # | .clwtad 8R B747 A332 | wind [winds], Runway **8R**, cleared to land. Caution wake turbulence arrived **B747**, departed **A332**. |
| .cltd | .cltd # | .cltd 8R | wind [winds], Runway **8R**, cleared to land, traffic departing. |
| .cltdp | .cltdp # # | .cltdp 8R 8L | wind [winds], Runway **8R**, cleared to land, traffic departing the parallel Runway **8L**. |
| .cltdi | .cltdi # # | .cltdi 1R 28 | wind [winds], Runway **1R**, cleared to land, traffic departing the intersecting Runway **28**. |
| .clta | .clta # # # | .clta 8R 3 12 | wind [winds], Runway **8R**, cleared to land, traffic **3** mile final for Runway **12**. |
| .cltap | .cltap # # # | .cltap 8R 3 8L | wind [winds], Runway **8R**, cleared to land, traffic **3** mile final for the parallel Runway **8L**. |
| .cltai | .cltai # # # | .cltai 1R 3 28 | wind [winds], Runway **1R**, cleared to land, traffic **3** mile final for intersecting Runway **28**. |
| .clthp | .clthp # | .clthp 8R | wind [winds], Runway **8R**, cleared to land, traffic holding in position. |
| .ctu | .ctu # | .ctu 8R | Runway **8R**, continue. |
| .ctutd | .ctutd # | .ctutd 8R | Runway **8R**, continue, traffic departing prior to your arrival. |
| .ctumd | .ctumd # # | .ctumd 8R 2 | Runway **8R**, continue, **2** departures prior to your arrival. |
| .ctuthp | .ctuthp # | .ctuthp 8R | Runway **8R**, continue, traffic holding in position. |
| .ctutmp | .ctutmp # | .ctutmp 8R | Runway **8R**, continue, traffic moving into position. |
| .ga | .ga | .ga | GO AROUND. |
| .miss | .miss | .miss | fly the missed approach as published. |
| .cg | .cg | .cg | contact ground. |
| .cgf | .cgf # | .cgf 121.8 | contact ground, **121.8**. |
| **DEPARTURES** | | | |
| .cto | .cto # | .cto 8R | wind [winds], Runway **8R**, cleared for takeoff. |
| .ctowtd | .ctowtd # # | .ctowtd 8R B747 | wind [winds], Runway **8R**, cleared for takeoff. Caution wake turbulence departed **B747**. |
| .ctor | .ctor # # | .ctor SENOY 8R | wind [winds], RNAV to **SENOY**, Runway **8R**, cleared for takeoff. |
| .ctorwtd | .ctorwtd # # # | .ctorwtd SENOY 8R B747 | wind [winds], RNAV to **SENOY**, Runway **8R**, cleared for takeoff. Caution wake turbulence departed **B747**. |
| .ctofh | .ctofh # # | .ctofh 280 28R | Fly heading **280**, wind [winds], Runway **28R**, cleared for takeoff. |
| .ctofhwtd | .ctofhwtd # # # | .ctofhwtd 280 28R B747 | Fly heading **280**, wind [winds], Runway **28R**, cleared for takeoff. Caution wake turbulence departed **B747**. |
| .ctotrh | .ctotrh # # | .ctotrh 160 8L | Turn right heading **160**, wind [winds], Runway **8L**, cleared for takeoff. |
| .ctotrhwtd | .ctotrhwtd # # # | .ctotrhwtd 160 8L B747 | Turn right heading **160**, wind [winds], Runway **8L**, cleared for takeoff. Caution wake turbulence departed **B747**. |
| .ctotlh | .ctotlh # # | .ctotlh 060 8L | Turn left heading **160**, wind [winds], Runway **8L**, cleared for takeoff. |
| .ctotlhwtd | .ctotlhwtd # # # | .ctotlhwtd 060 8L B747 | Turn left heading **160**, wind [winds], Runway **8L**, cleared for takeoff. Caution wake turbulence departed **B747**. |
| .luaw | .luaw # | .luaw 8R | Runway 8R, line up and wait. |
| .luawwt | .luawwt # | .luawwt 8R | Runway 8R, line up and wait for wake turbulence. |
| .luawtc | .luawtc # | .luawtc 8R | Runway 8R, line up and wait, traffic crossing downfield. |
| .luawtwc | .luawtwc # | .luawtwc 8R | Runway 8R, line up and wait, traffic will cross downfield. |
| .hstof | .hstof # | .hstof 1 | hold short, traffic **1** mile final. |
| .hstofi | .hstofi # # | .hstofi 1 12 | hold short, traffic **1** mile final for the intersecting Runway **12**. |
| .hswt | .hswt | .hswt | hold short for wake turbulence. |
| .rto | .rto | .rto | CANCEL TAKEOFF CLEARANCE. |
| .ctc | .ctc | .ctc | CANCEL TAKEOFF CLEARANCE. |
| .cd | .cd | .cd | contact departure. |

**VFR**

|  |  |  |  |
| --- | --- | --- | --- |
| **DEPARTURES** | | | |
| .vfrd | .vfrd # # # | .vfrd NORTH 2500 1V | departure to the **NORTH** is approved. Maintain VFR at or below **2500**, departure frequency **124.850**. Squawk [squawk]. |
| .vfrdso | .vfrdso | .vfrdso | straight-out departure approved. |
| .vfrdlc | .vfrdlc | .vfrdlc | left crosswind departure approved. |
| .vfrdrc | .vfrdrc | .vfrdrc | right crosswind departure approved. |
| .vfrdld | .vfrdld | .vfrdld | left downwind departure approved. |
| .vfrdrd | .vfrdrd | .vfrdrd | right downwind departure approved. |
| .vfrdu | .vfrdu # # | .vfrdu NORTH 2500 | departure to the **NORTH** is approved. Maintain VFR at or below **2500**, departure on UNICOM 122.80. Squawk [squawk]. |
| **CLASS BRAVO CLEARANCES** | | | |
| .vfrcob | .vfrcob # # # # | .vfrcob KMIA NORTH 2500 1V | cleared out of **KMIA** Bravo airspace to the **NORTH**. Maintain VFR at or below **2500**. Departure frequency **124.850**. Squawk [squawk]. |
| .vfrcobu | .vfrcobu # # # | .vfrcobu KMIA NORTH 2500 | cleared out of **KMIA** Bravo airspace to the **NORTH**. Maintain VFR at or below **2500**. Departure on unicom, 122.8. Squawk [squawk]. |
| .vfrcib | .vfrcib # # | .vfrcib KTPA 2500 | cleared into **KTPA** Bravo airspace. Maintain VFR at or below **2500**. |
| .vfrcibh | .vfrcibh # # # | .vfrcibh KMIA 2500 270 | cleared into **KMIA** Bravo airspace. Maintain VFR at or below **2500**, enter controlled airspace heading **270**. |
| .vfrctb | .vfrctb # # | .vfrctb KTPA 2500 | cleared through **KTPA** Bravo airspace. Maintain VFR at or below **2500**. |
| .vfrctbh | .vfrctbh # # # | .vfrctbh KMIA 2500 270 | cleared through **KMIA** Bravo airspace. Maintain VFR at or below **2500**, enter controlled airspace heading **270**. |
| .vfrrcb | .vfrrcb # # | .vfrrcb KMIA 2 | REMAIN CLEAR of the **KMIA** Bravo airspace. Expect an update in **2** minutes. |
| **PATTERN WORK & ARRIVALS** | | | |
| .lcta | .lcta | .lcta | left closed traffic approved. |
| .rcta | .rcta | .rcta | right closed traffic approved. |
| .eld | .eld # | .eld 27 | enter left downwind Runway **27**. |
| .erd | .erd # | .erd 27 | enter right downwind Runway **27**. |
| .elb | .elb # | .elb 27 | enter left base Runway **27**. |
| .erb | .erb # | .erb 27 | enter right base Runway **27**. |
| .msi | .msi # | .msi 27 | make straight in Runway **27**. |
| .rmd | .rmd | .rmd | report midfield downwind. |
| .rpn | .rpn | .rpn | report passing the numbers. |
| .rtb | .rtb | .rtb | report turning base. |
| .rtf | .rtf | .rtf | report turning final. |
| .ed | .ed | .ed | extend downwind, I'll call your base. |
| .eu | .eu | .eu | extend upwind, I'll call your crosswind. |
| .tc | .tc | .tc | turn crosswind. |
| .tb | .tb | .tb | turn base. |
| .copt | .copt # | .copt 27 | Runway **27**, cleared for the option. |
| .ctg | .ctg # | .ctg 27 | Runway **27**, cleared touch and go. |
| .cla | .cla # | .cla 27 | Runway **27**, cleared low approach. |

**RADAR**

|  |  |  |  |
| --- | --- | --- | --- |
| **TRANSPONDER** | | | |
| .ss | .ss | .ss | squawk standby. |
| .sn | .sn | .sn | squawk normal. |
| .smc | .smc | .smc | squawk Mode C. |
| .id | .id | .id | squawk ident. |
| .sq | .sq | .sq | squawk [squawk]. |
| .sqid | .sqid | .sqid | squawk [squawk] and ident. |
| .csq | .csq | .csq | check transponder. Verify squawking [squawk]. |
| .hiid | .hiid | .hiid | [position], squawk ident. |
| .hisq | .hisq | .hisq | [position], squawk [squawk]. |
| .hisqid | .hisqid | .hisqid | [position], squawk [squawk] and ident. |
| .hiaid | .hiaid # | .hiaid KMIA | [position], **KMIA** altimeter [altimeter], squawk ident. |
| .hiasq | .hiasq # | .hiasq KMIA | [position], **KMIA** altimeter [altimeter], squawk [squawk]. |
| .hiasqid | .hiasqid # | .hiasqid KMIA | [position], **KMIA** altimeter [altimeter], squawk [squawk] and ident. |
| **RADAR IDENTIFICATION** | | | |
| .sa | .sa | .sa | say altitude. |
| .rc | .rc | .rc | radar contact. |
| .rcsa | .rcsa | .rcsa | radar contact, say altitude. |
| .rcsal | .rcsal | .rcsal | radar contact, say altitude leaving. |
| .rcpos | .rcpos # | .rcpos JURER | radar contact [distance] miles [bearing] of **JURER**. |
| .rcpossa | .rcpossa # | .rcpossa JURER | radar contact [distance] miles [bearing] of **JURER**, say altitude. |
| .rcpossal | .rcpossal # | .rcpossal JURER | radar contact [distance] miles [bearing] of **JURER**, say altitude leaving. |
| .hisa | .hisa | .hisa | [position], say altitude. |
| .hirc | .hirc | .hirc | [position], radar contact. |
| .hircsa | .hircsa | .hircsa | [position], radar contact, say altitude. |
| .hircsal | .hircsal | .hircsal | [position], radar contact, say altitude leaving. |
| .hircpos | .hircpos # | .hircpos JURER | [position], radar contact [distance] miles [bearing] of **JURER**. |
| .hircpossa | .hircpossa # | .hircpossa JURER | [position], radar contact [distance] miles [bearing] of **JURER**, say altitude. |
| .hircpossal | .hircpossal # | .hircpossal JURER | [position], radar contact [distance] miles [bearing] of **JURER**, say altitude leaving. |
| .hiasa | .hiasa # | .hiasa KMIA | [position], **KMIA** altimeter [altimeter], say altitude. |
| .hiarc | .hiarc # | .hiarc KMIA | [position], **KMIA** altimeter [altimeter], radar contact. |
| .hiarcsa | .hiarcsa # | .hiarcsa KMIA | [position], **KMIA** altimeter [altimeter], radar contact, say altitude. |
| .hiarcsal | .hiarcsal # | .hiarcsal KMIA | [position], **KMIA** altimeter [altimeter], radar contact, say altitude leaving. |
| .hiarcpos | .hiarcpos # # | .hiarcpos KMIA JURER | [position], **KMIA** altimeter [altimeter], radar contact [distance] miles [bearing] of **JURER**. |
| .hiarcpossa | .hiarcpossa # # | .hiarcpossa KMIA JURER | [position], **KMIA** altimeter [altimeter], radar contact [distance] miles [bearing] of **JURER**, say altitude. |
| .hiarcpossal | .hiarcpossal # # | .hiarcpossal KMIA JURER | [position], **KMIA** altimeter [altimeter], radar [distance] miles [bearing] of **JURER**, say altitude leaving. |
| **TRAFFIC ADVISORIES** | | | |
| .tfc | .tfc # # # # # | .tfc 11 4 SOUTH B747 FL290 | traffic **11** o'clock, **4** miles, **SOUTH**-bound, **B747**, **FL290**. |
| .tfcc | .tfcc # # # # # # | .tfcc 11 4 SOUTH C172 5000 7000 | traffic **11** o'clock, **4** miles, **SOUTH**-bound, **C172**, leaving **5000**, climbing to **7000**. |
| .tfcd | .tfcd # # # # # # | .tfcd 11 4 SOUTH C172 7000 5000 | traffic **11** o'clock, **4** miles, **SOUTH**-bound, **C172**, leaving **7000**, descending to **5000**. |
| .tfcod | .tfcod # # # # | .tfcod 11 4 B747 FL290 | traffic **11** o'clock, **4** miles, opposite direction, **B747**, **FL290**. |
| .tfcodc | .tfcodc # # # # # | .tfcodc 11 4 C172 5000 7000 | traffic **11** o'clock, **4** miles, opposite direction, **C172**, leaving **5000**, climbing to **7000**. |
| .tfcodd | .tfcodd # # # # # | .tfcodd 11 4 C172 7000 5000 | traffic **11** o'clock, **4** miles, opposite direction, **C172**, leaving **7000**, descending to **5000**. |
| .tfcsd | .tfcsd # # # # | .tfcsd 11 4 B747 FL290 | traffic **11** o'clock, **4** miles, same direction, **B747**, **FL290**. |
| .tfcsdc | .tfcsdc # # # # # | .tfcsdc 11 4 C172 5000 7000 | traffic **11** o'clock, **4** miles, same direction, **C172**, leaving **5000**, climbing to **7000**. |
| .tfcsdd | .tfcsdd # # # # # | .tfcsdd 11 4 C172 7000 5000 | traffic **11** o'clock, **4** miles, same direction, **C172**, leaving **7000**, descending to **5000**. |
| .tfclr | .tfclr # # # # | .tfclr 11 4 B747 FL290 | traffic **11** o'clock, **4** miles, left to right, **B747**, **FL290**. |
| .tfclrc | .tfclrc # # # # # | .tfclrc 11 4 C172 5000 7000 | traffic **11** o'clock, **4** miles, left to right, **C172**, leaving **5000**, climbing to **7000**. |
| .tfclrd | .tfclrd # # # # # | .tfclrd 11 4 C172 7000 5000 | traffic **11** o'clock, **4** miles, left to right, **C172**, leaving **7000**, descending to **5000**. |
| .tfcrl | .tfcrl # # # # | .tfcrl 11 4 B747 FL290 | traffic **11** o'clock, **4** miles, right to left, **B747**, **FL290**. |
| .tfcrlc | .tfcrlc # # # # # | .tfcrlc 11 4 C172 5000 7000 | traffic **11** o'clock, **4** miles, right to left, **C172**, leaving **5000**, climbing to **7000**. |
| .tfcrld | .tfcrld # # # # # | .tfcrld 11 4 C172 7000 5000 | traffic **11** o'clock, **4** miles, right to left, **C172**, leaving **7000**, descending to **5000**. |
| .vsep | .vsep | .vsep | maintain visual separation from that traffic. |
| **SATELLITE OPS** | | | |
| .hfr | .hfr | .hfr | hold for release. |
| .rfd | .rfd | .rfd | released for departure. |
| .rfdh | .rfdh # | .rfdh 080 | released for departure. Enter controlled airspace heading **080**. |
| .rfdha | .rfdha # # | .rfdha 080 5000 | released for departure. Enter controlled airspace heading **080**, maintain **5000**. |

|  |  |  |  |
| --- | --- | --- | --- |
| **HEADING & ALTITUDE CONTROL** | | | |
| .fph | .fph | .fph | fly present heading. |
| .fphv | .fphv # # | .fphv ILS 12 | fly present heading, vector **ILS** Runway **12** approach. |
| .fphvf | .fphvf # # | .fphvf RNAV 12 | fly present heading, vector to **RNAV** Runway **12** final approach course. |
| .fphcm | .fphcm # | .fphcm 12000 | fly present heading, climb and maintain **12000**. |
| .fphcmv | .fphcmv # # # | .fphcmv 12000 ILS 12 | climb and maintain **12000**, fly present heading, vector **ILS** Runway **12** approach. |
| .fphcmvf | .fphcmvf # # # | .fphcmvf 12000 RNAV 12 | climb and maintain **12000**, fly present heading, **vector** to **RNAV** Runway **12** final approach course. |
| .fphdm | .fphdm # | .fphdm 12000 | fly present heading, descend and maintain **12000**. |
| .fphdmv | .fphdmv # # # | .fphdmv 12000 ILS 12 | descend and maintain **12000**, fly present heading, vector **ILS** Runway **12** approach. |
| .fphdmvf | .fphdmvf # # # | .fphdmvf 12000 RNAV 12 | descend and maintain **12000**, fly present heading, vector to **RNAV** Runway **12** final approach course. |
| .fh | .fh # | .fh 270 | fly heading **270**. |
| .fhv | .fhv # # # | .fhv 270 ILS 12 | fly heading **270**, vector **ILS** Runway **12** approach. |
| .fhvf | .fhvf # # # | .fhvf 270 RNAV 12 | fly heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .fhcm | .fhcm # # | .fhcm 270 12000 | fly heading **270**, climb and maintain **12000**. |
| .fhcmv | .fhcmv # # # # | .fhcmv 12000 270 ILS 12 | climb and maintain **12000**, fly heading **270**, vector **ILS** Runway **12** approach. |
| .fhcmvf | .fhcmvf # # # # | .fhcmvf 12000 270 RNAV 12 | climb and maintain **12000**, fly heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .fhdm | .fhdm # # | .fhdm 270 12000 | fly heading **270**, descend and maintain **12000**. |
| .fhdmv | .fhdmv # # # # | .fhdmv 12000 270 ILS 12 | descend and maintain **12000**, fly heading **270**, vector **ILS** Runway **12** approach. |
| .fhdmvf | .fhdmvf # # # # | .fhdmvf 12000 270 RNAV 12 | descend and maintain **12000**, fly heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .tlh | .tlh # | .tlh 270 | Turn left heading **270**. |
| .tlhv | .tlhv # # # | .tlhv 270 ILS 12 | turn left heading **270**, vector **ILS** Runway **12** approach. |
| .tlhvf | .tlhvf # # # | .tlhvf 270 RNAV 12 | turn left heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .tlhcm | .tlhcm # # | .tlhcm 270 12000 | turn left heading **270**, climb and maintain **12000**. |
| .tlhcmv | .tlhcmv # # # # | .tlhcmv 12000 270 ILS 12 | climb and maintain **12000**, turn left heading **270**, vector **ILS** Runway **12** approach. |
| .tlhcmvf | .tlhcmvf # # # # | .tlhcmvf 12000 270 RNAV 12 | climb and maintain **12000**, turn left heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .tlhdm | .tlhdm # # | .tlhdm 270 12000 | turn left heading **270**, descend and maintain **12000**. |
| .tlhdmv | .tlhdmv # # # # | .tlhdmv 12000 270 ILS 12 | descend and maintain **12000**, turn left heading **270**, vector **ILS** Runway **12** approach. |
| .tlhdmvf | .tlhdmvf # # # # | .tlhdmvf 12000 270 RNAV 12 | descend and maintain **12000**, turn left heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .trh | .trh # | .trh 270 | Turn right heading **270**. |
| .trhv | .trhv # # # | .trhv 270 ILS 12 | turn right heading **270**, vector **ILS** Runway **12** approach. |
| .trhvf | .trhvf # # # | .trhvf 270 RNAV 12 | turn right heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .trhcm | .trhcm # # | .trhcm 270 12000 | turn right heading **270**, climb and maintain **12000**. |
| .trhcmv | .trhcmv # # # # | .trhcmv 12000 270 ILS 12 | climb and maintain **12000**, turn right heading **270**, vector **ILS** Runway **12** approach. |
| .trhcmvf | .trhcmvf # # # # | .trhcmvf 12000 270 RNAV 12 | climb and maintain **12000**, turn right heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .trhdm | .trhdm # # | .trhdm 270 12000 | turn right heading **270**, descend and maintain **12000**. |
| .trhdmv | .trhdmv # # # # | .trhdmv 12000 270 ILS 12 | descend and maintain **12000**, turn right heading **270**, vector **ILS** Runway **12** approach. |
| .trhdmvf | .trhdmvf # # # # | .trhdmvf 12000 270 RNAV 12 | descend and maintain **12000**, turn right heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .pd | .pd # | .pd SABEE | proceed direct **SABEE**. |
| .fhpd | .fhpd # | .fhpd 270 SABEE | fly heading **270**. When able, proceed direct **SABEE**. |
| .pdcm | .pdcm # # | .pdcm SABEE 12000 | proceed direct **SABEE**, climb and maintain **12000**. |
| .pddm | .pddm # # | .pddm SABEE 12000 | proceed direct **SABEE**, descend and maintain **12000**. |
| .cm | .cm # | .cm 12000 | Climb and maintain **12000**. |
| .dm | .dm # | .dm 12000 | Descend and maintain **12000**. |
| .hi | .hi | .hi | [position]. |
| .hifh | .hifh # | .hifh 270 | [position], fly heading **270**. |
| .hifhv | .hifhv # # # | .hifhv 270 ILS 12 | [position], fly heading **270** vector **ILS** Runway **12** approach. |
| .hifhvf | .hifhvf # # # | .hifhvf 270 RNAV 12 | [position], fly heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hifhcm | .hifhcm # # | .hifhcm 270 12000 | [position], fly heading **270**, climb and maintain **12000**. |
| .hifhcmv | .hifhcmv # # # # | .hifhcmv 12000 270 ILS 12 | [position], climb and maintain **12000**, fly heading **270**, vector **ILS** Runway **12** approach. |
| .hifhcmvf | .hifhcmvf # # # # | .hifhcmvf 12000 270 RNAV 12 | [position], climb and maintain **12000**, fly heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hifhdm | .hifhdm # # | .hifhdm 270 12000 | [position], fly heading **270**, climb and maintain **12000**. |
| .hifhdmv | .hifhdmv # # # # | .hifhdmv 12000 270 ILS 12 | [position], climb and maintain **12000**, fly heading **270**, vector **ILS** Runway **12** approach. |
| .hifhdmvf | .hifhdmvf # # # # | .hifhdmvf 12000 270 RNAV 12 | [position], climb and maintain **12000**, fly heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hitlh | .hitlh # | .hitlh 270 | [position], turn left heading **270**. |
| .hitlhv | .hitlhv # # # | .hitlhv 270 ILS 12 | [position], turn left heading **270**, vector **ILS** Runway **12** approach. |
| .hitlhvf | .hitlhvf # # # | .hitlhvf 270 RNAV 12 | [position], turn left heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hitlhcm | .hitlhcm # # | .hitlhcm 270 12000 | [position], turn left heading **270**, climb and maintain **12000**. |
| .hitlhcmv | .hitlhcmv # # # # | .hitlhcmv 12000 270 ILS 12 | [position], climb and maintain **12000**, turn left heading **270**, vector **ILS** Runway **12** approach. |
| .hitlhcmvf | .hitlhcmvf # # # # | .hitlhcmvf 12000 270 RNAV 12 | [position], climb and maintain **12000**, turn left heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hitlhdm | .hitlhdm # # | .hitlhdm 270 12000 | [position], turn left heading **270**, climb and maintain **12000**. |
| .hitlhdmv | .hitlhdmv # # # # | .hitlhdmv 12000 270 ILS 12 | [position], climb and maintain **12000**, turn left heading **270**, vector **ILS** Runway **12** approach. |
| .hitlhdmvf | .hitlhdmvf # # # # | .hitlhdmvf 12000 270 RNAV 12 | [position], climb and maintain **12000**, turn left heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hitrh | .hitrh # | .hitrh 270 | [position], turn right heading **270**. |
| .hitrhv | .hitrhv # # # | .hitrhv 270 ILS 12 | [position], turn right heading **270**, vector **ILS** Runway **12** approach. |
| .hitrhvf | .hitrhvf # # # | .hitrhvf 270 RNAV 12 | [position], turn right heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hitrhcm | .hitrhcm # # | .hitrhcm 270 12000 | [position], turn right heading **270**, climb and maintain **12000**. |
| .hitrhcmv | .hitrhcmv # # # # | .hitrhcmv 12000 270 ILS 12 | [position], climb and maintain **12000**, turn right heading **270**, vector **ILS** Runway **12** approach. |
| .hitrhcmvf | .hitrhcmvf # # # # | .hitrhcmvf 12000 270 RNAV 12 | [position], climb and maintain 12000, turn right heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hitrhdm | .hitrhdm # # | .hitrhdm 270 12000 | [position], turn right heading **270**, climb and maintain **12000**. |
| .hitrhdmv | .hitrhdmv # # # # | .hitrhdmv 12000 270 ILS 12 | [position], climb and maintain **12000**, turn right heading **270**, vector **ILS** Runway **12** approach. |
| .hitrhdmvf | .hitrhdmvf # # # # | .hitrhdmvf 12000 270 RNAV 12 | [position], climb and maintain **12000**, turn right heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hipd | .hipd # | .hipd SABEE | [position], proceed direct **SABEE**. |
| .hifhpd | .hifhpd # | .hifhpd 270 SABEE | [position], fly heading **270**. When able, proceed direct **SABEE**. |
| .hipdcm | .hipdcm # # | .hipdcm SABEE 12000 | [position], proceed direct **SABEE**, climb and maintain **12000**. |
| .hipddm | .hipddm # # | .hipddm SABEE 12000 | [position], proceed direct **SABEE**, descend and maintain **12000**. |
| .hicm | .hicm # | .hicm 12000 | [position], climb and maintain **12000**. |
| .hidm | .hidm # | .hidm 12000 | [position], descend and maintain **12000**. |
| .hiea | .hiea # # | .hiea ILS 8R | [position], expect **ILS** runway **8R** approach. |
| .hia | .hia # | .hia KMIA | [position], **KMIA** altimeter [altimeter]. |
| .hiafh | .hiafh # # | .hiafh KMIA 270 | [position], **KMIA** altimeter [altimeter], fly heading **270**. |
| .hiafhv | .hiafhv # # # # | .hiafhv KMIA 270 ILS 12 | [position], **KMIA** altimeter [altimeter], fly heading **270**, vector **ILS** Runway **12** approach. |
| .hiafhvf | .hiafhvf # # # # | .hiafhvf KMIA 270 RNAV 12 | [position], **KMIA** altimeter [altimeter], fly heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hiafhcm | .hiafhcm # # # | .hiafhcm KMIA 270 12000 | [position], **KMIA** altimeter [altimeter], fly heading **270**, climb and maintain **12000**. |
| .hiafhcmv | .hiafhcmv # # # # # | .hiafhcmv KMIA 12000 270 ILS 12 | [position], **KMIA** altimeter [altimeter], climb and maintain **12000**, fly heading **270**, vector **ILS** Runway **12** approach. |
| .hiafhcmvf | .hiafhcmvf # # # # # | .hiafhcmvf KMIA 12000 270 RNAV 12 | [position], **KMIA** altimeter [altimeter], climb and maintain **12000**, fly heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hiafhdm | .hiafhdm # # # | .hiafhdm KMIA 270 12000 | [position], **KMIA** altimeter [altimeter], fly heading **270**, descend and maintain **12000**. |
| .hiafhdmv | .hiafhdmv # # # # # | .hiafhdmv KMIA 12000 270 ILS 12 | [position], **KMIA** altimeter [altimeter], descend and maintain **12000**, fly heading **270**, vector **ILS** Runway **12** approach. |
| .hiafhdmvf | .hiafhdmvf # # # # # | .hiafhdmvf KMIA 12000 270 RNAV 12 | [position], **KMIA** altimeter [altimeter], descend and maintain **12000**, fly heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hiatlh | .hiatlh # # | .hiatlh KMIA 270 | [position], **KMIA** altimeter [altimeter], turn left heading **270**. |
| .hiatlhv | .hiatlhv # # # # | .hiatlhv KMIA 270 ILS 12 | [position], **KMIA** altimeter [altimeter], turn left heading **270**, vector **ILS** Runway **12** approach. |
| .hiatlhvf | .hiatlhvf # # # # | .hiatlhvf KMIA 270 RNAV 12 | [position], **KMIA** altimeter [altimeter], turn left heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hiatlhcm | .hiatlhcm # # # | .hiatlhcm KMIA 270 12000 | [position], **KMIA** altimeter [altimeter], turn left heading **270**, climb and maintain **12000**. |
| .hiatlhcmv | .hiatlhcmv # # # # # | .hiatlhcmv KMIA 12000 270 ILS 12 | [position], **KMIA** altimeter [altimeter], climb and maintain **12000**, turn left heading **270**, vector **ILS** Runway **12** approach. |
| .hiatlhcmvf | .hiatlhcmvf # # # # # | .hiatlhcmvf KMIA 12000 270 RNAV 12 | [position], **KMIA** altimeter [altimeter], climb and maintain **12000**, turn left heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hiatlhdm | .hiatlhdm # # # | .hiatlhdm KMIA 270 12000 | [position], **KMIA** altimeter [altimeter], turn left heading **270**, descend and maintain **12000**. |
| .hiatlhdmv | .hiatlhdmv # # # # # | .hiatlhdmv KMIA 12000 270 ILS 12 | [position], **KMIA** altimeter [altimeter], descend and maintain **12000**, turn left heading **270**, vector **ILS** Runway **12** approach. |
| .hiatlhdmvf | .hiatlhdmvf # # # # # | .hiatlhdmvf KMIA 12000 270 RNAV 12 | [position], **KMIA** altimeter [altimeter], descend and maintain **12000**, turn left heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hiatrh | .hiatrh # # | .hiatrh KMIA 270 | [position], **KMIA** altimeter [altimeter], turn right heading **270**. |
| .hiatrhv | .hiatrhv # # # # | .hiatrhv KMIA 270 ILS 12 | [position], **KMIA** altimeter [altimeter], turn right heading **270**, vector **ILS** Runway **12** approach. |
| .hiatrhvf | .hiatrhvf # # # # | .hiatrhvf KMIA 270 RNAV 12 | [position], **KMIA** altimeter [altimeter], turn right heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hiatrhcm | .hiatrhcm # # # | .hiatrhcm KMIA 270 12000 | [position], **KMIA** altimeter [altimeter], turn right heading **270**, climb and maintain **12000**. |
| .hiatrhcmv | .hiatrhcmv # # # # # | .hiatrhcmv KMIA 12000 270 ILS 12 | [position], **KMIA** altimeter [altimeter], climb and maintain **12000** turn right heading **270**, vector **ILS** Runway **12** approach. |
| .hiatrhcmvf | .hiatrhcmvf # # # # # | .hiatrhcmvf KMIA 12000 270 RNAV 12 | [position], **KMIA** altimeter [altimeter], climb and maintain **12000**, turn right heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hiatrhdm | .hiatrhdm # # # | .hiatrhdm KMIA 270 12000 | [position], **KMIA** altimeter [altimeter], turn right heading **270**, descend and maintain **12000**. |
| .hiatrhdmv | .hiatrhdmv # # # # # | .hiatrhdmv KMIA 12000 270 ILS 12 | [position], **KMIA** altimeter [altimeter], descend and maintain **12000**, turn right heading **270**, vector **ILS** Runway **12** approach. |
| .hiatrhdmvf | .hiatrhdmvf # # # # # | .hiatrhdmvf KMIA 12000 270 RNAV 12 | [position], **KMIA** altimeter [altimeter], descend and maintain **12000**, turn right heading **270**, vector to **RNAV** Runway **12** final approach course. |
| .hiapd | .hiapd # # | .hiapd KMIA HEDLY | [position], **KMIA** altimeter [altimeter], proceed direct **HEDLY**. |
| .hiafhpd | .hiafhpd # # | .hiafhpd KMIA 270 HEDLY | [position], **KMIA** altimeter [altimeter], fly heading **270**. When able, proceed direct **HEDLY**. |
| .hiapdcm | .hiapdcm # # # | .hiapdcm KMIA HEDLY 12000 | [position], **KMIA** altimeter [altimeter], proceed direct **HEDLY**, climb and maintain **12000**. |
| .hiapddm | .hiapddm # # # | .hiapddm KMIA HEDLY 12000 | [position], **KMIA** altimeter [altimeter], proceed direct **HEDLY**, descend and maintain **12000**. |
| .hiacm | .hiacm # # | .hiacm KMIA 12000 | [position], **KMIA** altimeter [altimeter], climb and maintain **12000**. |
| .hiadm | .hiadm # # | .hiadm KMIA 12000 | [position], **KMIA** altimeter [altimeter], descend and maintain **12000**. |
| .hiaea | .hiaea # # # | .hiaea KMIA ILS 8R | [position], **KMIA** altimeter [altimeter], expect **ILS** runway **8R** approach. |
| **SPEED CONTROL** | | | |
| .rs | .rs # | .rs 180 | reduce speed to **180**. |
| .rsm | .rsm # | .rsm .88 | reduce speed to mach **.88**. |
| .is | .is # | .is 180 | increase speed to **180**. |
| .ism | .ism # | .ism .88 | increase speed to mach **.88**. |
| .ms | .ms # | .ms 180 | maintain **180** knots. |
| .mm | .mm # | .mm .88 | maintain mach **.88**. |
| .dne | .dne # | .dne 180 | do not exceed **180** knots |
| .dnem | .dnem # | .dnem .88 | do not exceed mach **.88**. |
| .mfs | .mfs | .mfs | maintain maximum forward speed. |
| .sps | .sps | .sps | maintain slowest practical speed. |
| .rfas | .rfas | .rfas | reduce to final approach speed. |
| .csr | .csr | .csr | cancel speed restriction. |
| .rns | .rns | .rns | resume normal speed. |
| **VISUAL APPROACH CLEARANCES** | | | |
| .aprt | .aprt | .aprt | [destination] [clock direction], [distance] miles. Report the field in sight. |
| .va | .va # | .va 12 | cleared visual approach Runway **12**. |
| .ftcva | .ftcva # | .ftcva 12 | follow that traffic, cleared visual approach Runway **12**. |
| **INSTRUMENT APPROACH CLEARANCES** | | | |
| .loc | .loc # | .loc 12 | intercept the Runway **12** localizer. |
| .ptac | .ptac # # # # # # | .ptac 3 GLRIA 150 3000 ILS 12 | **3** miles from from **GLRIA**, fly heading **150**, maintain **3000** until established on the localizer, cleared **ILS** Runway **12** approach. |
| .ptacr | .ptacr # # # # # # | .ptacr 3 GLRIA 150 3000 ILS 12 | **3** miles from from **GLRIA**, turn right heading **150**, maintain **3000** until established on the localizer, cleared **ILS** Runway **12** approach. |
| .ptacl | .ptacl # # # # # # | .ptacl 3 GLRIA 150 3000 ILS 12 | **3** miles from from **GLRIA**, turn left heading **150**, maintain **3000** until established on the localizer, cleared **ILS** Runway **12** approach. |
| .pac | .pac # # # # # # | 3 GLRIA 150 3000 ILS 12 | **3** miles from from **GLRIA**, fly heading **150**, maintain **3000** until established on the localizer, cleared **ILS** Runway **12** approach |
| .pc | .pc # # # # # # | 3 GLRIA 150 3000 ILS 12 | **3** miles from from **GLRIA**, fly heading **150**, maintain **3000** until established on the localizer, cleared **ILS** Runway **12** approach |
| **CROSSING RESTRICTIONS** | | | |
| .xs | .xs # # | .xs WORPP 250 | cross **WORPP** at **250** knots. |
| .xa | .xa # # | .xa WORPP 10000 | cross **WORPP** at and maintain **10000**. |
| .xaa | .xaa # # # | .xaa WORPP 10000 KMIA | cross **WORPP** at and maintain **10000**, **KMIA** altimeter [altimeter]. |
| .xacm | .xacm # # # | .xacm WORPP 10000 12000 | cross **WORPP** at **10000**, climb and maintain **12000**. |
| .xadm | .xadm # # # | .xadm WORPP 10000 8000 | cross **WORPP** at **10000**, descend and maintain **8000**. |
| .xadma | .xadma # # # # | .xadma WORPP 10000 8000 KMIA | cross **WORPP** at **10000**, descend and maintain **8000**, **KMIA** altimeter [altimeter]. |
| .xas | .xas # # # | .xas WORPP 10000 250 | cross **WORPP** at and maintain **10000**, **250** knots. |
| .xasa | .xasa | .xasa WORPP 10000 250 12000 | cross **WORPP** at and maintain **10000**, **250** knots, **KMIA** altimeter [altimeter]. |
| .xascm | .xascm | .xascm WORPP 10000 250 12000 | cross **WORPP** at **10000**, **250** knots, climb and maintain **12000**. |
| .xadm | .xadm | .xadm WORPP 10000 250 8000 | cross **WORPP** at **10000**, **250** knots, descend and maintain **8000**. |
| .xadma | .xadma | .xadma WORPP 10000 250 8000 KMIA | cross **WORPP** at **10000**, **250** knots, descend and maintain **8000**, **KMIA** altimeter [altimeter]. |
| .xaoa | .xaoa # # | .xaoa WORPP 10000 | cross **WORPP** at or above **10000**. |
| .xaoacm | .xaoacm | .xaoacm WORPP 10000 12000 | cross **WORPP** at or above **10000**, climb and maintain **12000**. |
| .xaoadm | .xaoadm | .xaoadm WORPP 10000 8000 | cross **WORPP** at or above **10000**, descend and maintain **8000**. |
| .xaosdma | .xaosdma | .xaosdma WORPP 10000 8000 KMIA | cross **WORPP** at or above **10000**, descend and maintain **8000**, **KMIA** altimeter [altimeter]. |
| .xaoas | .xaoas # # # | .xaoas WORPP 10000 250 | cross **WORPP** at or above **10000**, **250** knots. |
| .xaoascm | .xaoascm | .xaoascm WORPP 10000 250 12000 | cross **WORPP** at or above **10000**, **250** knots, climb and maintain **12000**. |
| .xaoasdm | .xaoasdm | .xaoasdm WORPP 10000 250 8000 | cross **WORPP** at or above **10000**, **250** knots, descend and maintain **8000**. |
| .xaoasdma | .xaoasdma | .xaoasdma WORPP 10000 250 8000 KMIA | cross **WORPP** at or above **10000**, **250** knots, descend and maintain **8000**, **KMIA** altimeter [altimeter]. |
| .xaob | .xaob # # | .xaob WORPP 10000 | cross **WORPP** at or below **10000**. |
| .xaobcm | .xaobcm | .xaobcm | cross **WORPP** at or below **10000**, climb and maintain **12000**. |
| .xaobdm | .xaobdm | .xaobdm | cross **WORPP** at or below **10000**, descend and maintain **8000**. |
| .xaobdma | .xaobdma | .xaobdma | cross **WORPP** at or below **10000**, descend and maintain **8000**, **KMIA** altimeter [altimeter]. |
| .xaobs | .xaobs # # # | .xaobs WORPP 10000 250 | cross **WORPP** at or below **10000**, **250** knots. |
| .xaobscm | .xaobscm | .xaobscm | cross **WORPP** at or below **10000**, **250** knots, climb and maintain **12000**. |
| .xaobsdm | .xaobsdm | .xaobsdm | cross **WORPP** at or below **10000**, **250** knots, descend and maintain **8000**. |
| .xaobsdma | .xaobsdma | .xaobsdma | cross **WORPP** at or below **10000**, **250** knots, descend and maintain **8000**, **KMIA** altimeter [altimeter]. |
| **REPORTS** | | | |
| .rl | .rl # | .rl 12000 | report leaving **12000**. |
| .rp | .rp # | .rp 12000 | report passing **12000**. |
| .rx | .rx # | .rx SABEE | report crossing **SABEE**. |
| .re | .re # | .re localizer | report established on **localizer**. |
| .rrtod | .rrtod | .rrtod | Report reaching top of descent. |

**UNICOM**

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| **GENERAL UNICOM** | | | |
| .rst | .rst | .rst | radar services terminated, change to advisory frequency approved. |
| .rstnto | .rstnto | .rstnto | no observed traffic between you and [destination]. Radar services terminated, change to advisory frequency approved. |
| .rstrci | .rstrci | .rstrci | report cancellation of IFR this frequency. Radar services terminated, change to advisory frequency approved. |
| .rstntorci | .rstntorci | .rstntorci | no traffic observed between you and [destination]. Report cancellation of IFR this frequency. Radar services terminated, change to advisory frequency approved. |
| .bye | .bye | .bye | departing my airspace, no further ATC available. Change to advisory frequency approved. |
| .byev | .byev | .byev | departing my airspace, no further ATC available. Squawk VFR, change to advisory frequency approved. |
| .byeup | .byeup | .byeup | climbing out of my airspace, no further ATC available. Change to advisory frequency approved. |
| .byedown | .byedown | .byedown | descending out of my airsapce, no further ATC available. Change to advisory frequency approved. |
| .byerst | .byerst | .byerst | departing my airspace, no further ATC available. Radar services terminated, change to advisory frequency approved. |
| .byerstv | .byerstv | .byerstv | departing my airspace, no further ATC available. Radar services terminated, squawk VFR, change to advisory frequency approved. |
| .byerstup | .byerstup | .byerstup | climbing out of my airspace, no further ATC available. Radar services terminated, change to advisory frequency approved. |
| .byerstdown | .byerstdown | .byerstdown | descending out of my airsapce, no further ATC available. Radar services terminated, change to advisory frequency approved. |
| .icr | .icr | .icr | IFR cancellation received, [time]. Radar services terminated, squawk VFR, change to advisory frequency approved. |
| .uc | .uc | .uc | monitor unicom 122.8. |

**CONFIGURATION**

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| **WEATHER** | | | |
| .wxgroup1 | .wxgroup1 | .wxgroup1 | Toggle weather display for KMIA KFLL KTPA KRSW KPBI KSRQ |
| .wxgroup2 | .wxgroup2 | .wxgroup2 | Toggle weather display for KMIA KFLL KOPF KTMB KFXE KHWO |
| .wxgroup3 | .wxgroup3 | .wxgroup3 | Toggle weather display for KTPA KSRQ KLAL KPIE |
| **VALID DEPARTURE FIXES Ensure no other fixes or VORs are currently displayed prior to use.** | | | |
| .vdfmiat | .vdfmiat | .vdfmiat | Display Miami TRACON departure gate fixes (KMIA & KFLL) |
| .vdfmia | .vdfmia | .vdfmia | Display KMIA departure gate fixes. |
| .vdffll | .vdffll | .vdffll | Display KFLL departure gate fixes. |
| .vdftpa | .vdftpa | .vdftpa | Display KTPA departure gate fixes. |
| .vdfpbi | .vdfpbi | .vdfpbi | Display KPBI departure gate fixes. |
| .vdfrsw | .vdfrsw | .vdfrsw | Display KRSW departure gate fixes. |
| .vdfeyw | .vdfeyw | .vdfeyw | Display KEYW departure gate fixes. |
| **ILS/LOC FIXES  Ensure no other fixes or VORs are currently displayed prior to use.** | | | |
| .imia | .imia | .imia | Display ILS fixes for KMIA – all Runways. |
| .imian | .imian | .imian | Display LOC fixes for KMIA Runways 8L & 26R. |
| .imiac | .imiac | .imiac | Display ILS fixes for KMIA Runways 8R & 26L. |
| .imias | .imias | .imias | Display ILS fixes for KMIA Runways 9 & 27. |
| .imiax | .imiax | .imiax | Display ILS fixes for KMIA Runways 12 & 30. |
| .ifll | .ifll | .ifll | Display ILS fixes for KFLL – all Runways. |
| .iflln | .iflln | .iflln | Display ILS fixes for KFLL Runway 10L & 28R. |
| .iflls | .iflls | .iflls | Display ILS fixes for KFLL Runway 10R & 28L. |
| **VRC ONLY** | | | |
| .brief | .brief | .brief | Brings up a VRC sticky with position relief briefing items. |
| .sopmia | .sopmia | .sopmia | Brings up a VRC sticky with SOP altitudes out of KMIA. |
| .soptpa | .soptpa | .soptpa | Brings up a VRC sticky with SOP altitudes out of KTPA. |
| .soprsw | .soprsw | .soprsw | Brings up a VRC sticky with SOP altitudes out of KRSW. |
| **vERAM ONLY** | | | |
| .nm | .nm | .nm | Removes any markers (equivalent to .nomarkers). |
| .c | .c # | .c KMIA | Moves center of display to the specified location (in this case, to KMIA). |

**REFERENCES AND TOOLS**

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| **REFERENCE / LOOK UP FOR AIRLINE THREE LETTER IDENTIFIERS** | | | |
| .id[ICAO] | .id[ICAO] | .idAAL .idPSV | ZMA\_INFO: \*\*\* 3LD: AAL \_\_\_\_\_TELEPHONY: AMERICAN ZMA\_INFO: \*\*\* 3LD: PSV \_\_\_\_\_TELEPHONY: PROSERVICIOS (Virtual: Power)  \*You must be connected to the network for this to work. |

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| **REFERENCE / LOOK UP FOR NAVIGATION EEQUIPMENT SUFFIXES** | | | |
| .eq[code] | .id[code] | .eqA .eqL | ZMA\_INFO: \*\*\* \_\_ /A RNAV: No \_\_ GNSS: No \_\_ MODE-C: Yes \_\_ RVSM: No \_\_ DME: Yes ZMA\_INFO: \*\*\* \_\_ /L RNAV: Yes \_\_ GNSS: Yes\_\_ MODE-C: Yes \_\_ RVSM: Yes\_\_ DME: Yes  \*You must be connected to the network for this to work. |

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| **REFERENCE / LOOK UP FOR NDBs** | | | |
| .ndb[code] | .ndb[code] | .ndbFIS | ZMA\_INFO \*\*\* FISH HOOK NDB  \*You must be connected to the network for this to work. |

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| **REFERENCE / LOOK UP FOR VORs** | | | |
| .vor[code] | .vor[code] | .vorLAL | ZMA\_INFO \*\*\* LAKELAND VORTAC  \*You must be connected to the network for this to work. |

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| **REFERENCE / LOOK UP FOR PDAR ROUTE STRINGS** | | | |
| .[airport initial][airway] | .[airport initial][airway] | .my280  .fq87 | ZMA\_INFO \*\*\* WINCO CHRRI DOLIE Y280  ZMA\_INFO \*\*\* ARKES SEAZY ONEWY Q87  \*You must be connected to the network for this to work. |

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| **REFERENCE / LOOK UP IFR ROUTES BETWEEN AIRPORTS** | | | |
| **.flightaware** | .flightaware # # | .flightaware KMIA EGLL  .flightaware MIA LHR | A web browser window will open with a list of IFR routes from FlightAware between Miami International and London Heathrow |