

**VIRTUAL AIR TRAFFIC SIMULATION NETWORK
UNITED STATES DIVISION
TUCSON TRACON**

**ORDER
U90 TRACON
7110.6A**

SUBJ: Tucson TRACON (U90) Standard Operating Procedures

This order prescribes air traffic control procedures and functions for the Tucson TRACON. It is emphasized that information contained herein is designed and specifically for use in a virtual controlling environment. It is not applicable, nor should be referenced for live operations in the National Airspace System (NAS). If a conflict arises in the interpretation of the instructions and/or guidelines of this order, controllers shall use good judgment to maintain a safe operation. The procedures contained within this order, in conjunction with FAA Orders 7110.10, 7110.65, and 7210.3, will be the basis for performance evaluations, training, and certification.

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CHAPTER 1. INTRODUCTION

- 1-1. PURPOSE.** This order prescribes air traffic control procedures and functions for the Tucson TRACON.
- 1-2. DISTRIBUTION.** This order is distributed to all VATUSA Albuquerque ARTCC Controllers, visitors, and other interested parties.
- 1-3. CANCELLATION.** Reserved.
- 1.4. EFFECTIVE DATE.** XXX

CHAPTER 2. RADAR/IFR/VFR**2-1. GENERAL**

- a. The active runway in use at TUS shall determine TRACON flow in use. If runway 21 is the primary active runway, the secondary runway (11 or 29) shall be the determining factor.
- b. TRACON shall ensure pertinent flight information (e.g., approach being conducted, aircraft type, etc.) is either displayed in the data block or coordinated with Tower.
- c. Transfer of communications to TUS or DMA towers should be in the order of the approach sequence.
- d. The transferring controller shall retain display of an aircraft's full data block until the aircraft is within the receiving controller's airspace.
- e. When IFR aircraft descend below/fly in to a minimum vectoring altitude (MVA) area higher than their present altitude, issue a low altitude alert and assign an altitude compatible with the MVA.

2-2. INTRAFACILITY CONTROL TRANSFER

- a. Acceptance of a point out of handoff constitutes authorization for climb or descent to the altitude indicated in the data block.
- b. For departures and arrivals, the receiving controller has control on contact to vector aircraft toward their departure route or destination airport with turns not to exceed 90 degrees from present heading.
- c. For arrivals, the receiving controller has control on contact for descent.

2-3. VECTORING

- a. Vector IFR traffic in compliance with the Minimum Vectoring Altitude (MVA).
- b. For TUS ILS Runway 11L arrivals, WASON intersection shall be the approach gate due to high terrain.
- c. IFR traffic landing DMA shall be vectored according to the DMA Radar Pattern in Appendix 1.

2-4. DEPARTURES

- a. For aircraft departing other than TUS or DMA, coordinate with affected positions before issuing an IFR departure clearance. Note, coordination with ZAB or MZT centers may be necessary.
- b. Issue the following to RYN departures prior to transfer of communications:
 - (1) East/Southbound: Heading 120, climb to altitude in data block.
 - (2) V66/V105 Northwest bound: Vector and instruction to join airway, climb to altitude in data block.
- c. For local IFR/VFR flights, obtain the aircraft's destination or direction of flight or requested IFR procedure, enter that information in to the scratchpad, and assign a beacon code.

2-5. ARRIVALS

- a. AR shall, prior to aircraft entering TUS Tower's airspace, effect a handoff to DR for aircraft which will enter DR airspace after a low approach/touch-and-go.
- b. AR shall advise TUS Tower of pertinent traffic prior to transfer of communications to tower.

2-6. INSTRUMENT APPROACHES

- a. TUS is the primary airport.
- b. All VFR aircraft requesting practice instrument approaches to TUS/DMA/RYN shall be provided with standard IFR separation in accordance with FAA Order 7110.65. For all other airports within U90, VFR aircraft shall be instructed to maintain VFR as soon as practicable after initial contact.

2-7. DMA IFR MULTIPLE PRACTICE APPROACHES

- a. Aircraft conducting multiple practice approaches at DMA and executing climbout for a subsequent approach shall be pointed out to DR using the following procedure:
 - (1) Assign aircraft heading 105 (RWY 12) or heading 315 (RWY 30).
 - (2) Aircraft intentions displayed in the data block scratchpad (e.g., approach to be executed).
 - (3) AR shall complete point out to DR prior to a 1 mile final.
 - (4) AR shall have control within DR airspace for climb to 7,000' and turns for the radar pattern.

2-8. Southeast Flow (TUS RWY 11 / DMA RWY 12)

a. Except as described below, aircraft shall be assigned a downwind heading prior to entering AR airspace.

b. Position responsibilities:

(1) Arrival Radar (AR)

(a) IFR arrivals landing TUS from the east shall be established on a 270 heading between the 9,000' MVA and "A" Mountain, descending to 8,000' prior to being vectored for base leg.

(b) For VFR arrivals originating in DR airspace with a planned downwind between TUS and DMA, AR will either accept the handoff from DR or say unable. DR will transfer communications to TUS Tower after the handoff. AR shall ensure adequate spacing on final allowing TUS Tower to plan a landing sequence with the downwind traffic.

(2) Departure Radar (DR)

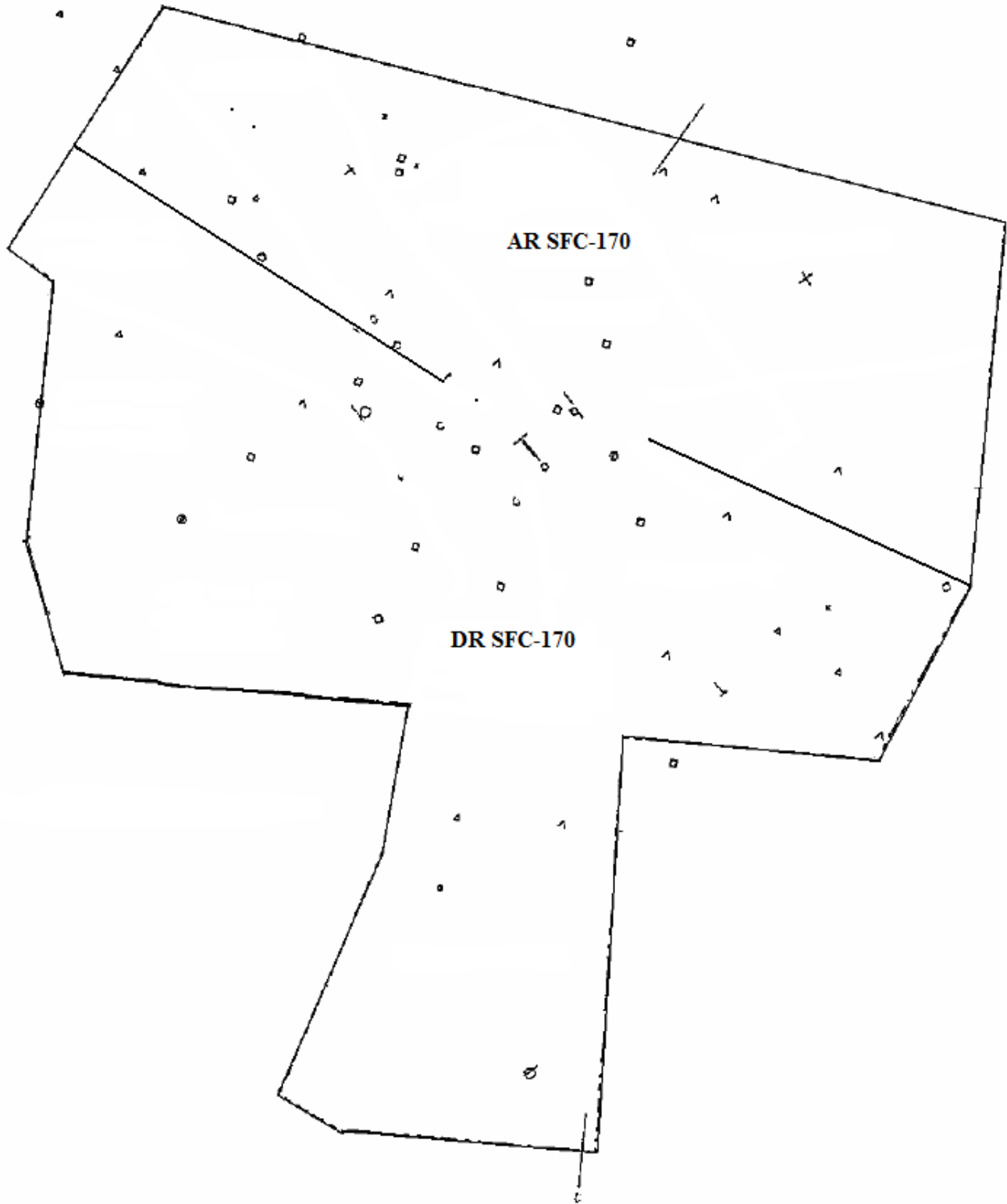
(a) Arrivals

- 1** IFR arrivals from the south, at or above 7,000', landing TUS shall be handed off to AR at or descending to 7,000' and established on a downwind heading.
- 2** Arrivals from the south and west 6,500' and below shall be vectored to avoid a straight-in approach at TUS. VFR aircraft landing RWY 11R shall be instructed to make right traffic at or above 4,000'.
- 3** For VFR arrivals originating in DR airspace with a planned downwind between TUS and DMA, DR shall instruct the aircraft to enter downwind at or above 4,000' and handoff the aircraft to AR. DR shall change the aircraft to TUS Tower's frequency at or prior to the fairgrounds (Map Fix Name: FRGRNDS) after the handoff is completed.

(b) IFR Departures

- 1** TUS Runway 11 joining TUS319R. Standard headings are left turn to 320 or right turn to 300. Heading 320 is strongly preferred to avoid interference with DINGO arrivals.
- 2** DMA Runway 12 joining TUS319R. Aircraft shall be issued a left turn heading 300, unless otherwise coordinated.

AIRSPACE DELEGATION – SOUTHEAST FLOW (TUS RWY 11 / DMA RWY 12)



2-9. Northwest Flow (TUS RWY 29 / DMA RWY 30)

a. Except as described below, aircraft shall be assigned a downwind heading prior to entering AR airspace.

b. Position responsibilities:

(1) Arrival Radar (AR)

(a) IFR arrivals landing TUS from the east shall be established on a heading between VAINÉ and ILEEN (about heading 215 from SSAND), descending to 9,000' prior to being vectored to final.

(b) For VFR arrivals originating in DR airspace with a planned downwind between TUS and DMA, AR will either accept the handoff from DR or say unable. DR will transfer communications to TUS Tower after the handoff. AR shall ensure adequate spacing on final allowing TUS Tower to plan a landing sequence with the downwind traffic.

(2) Departure Radar (DR)**(a) Arrivals**

1 IFR arrivals from the west landing TUS shall be handed off to AR prior to the RYN NDB and shall be at 8,000' by RYN NDB, established on a downwind heading.

2 Arrivals from the south and west 6,500' and below shall be vectored to avoid a straight-in approach at TUS. VFR aircraft landing RWY 29L shall be instructed to make left traffic at or above 4,000'. Base leg pattern entry shall be coordinated with tower prior to clearance.

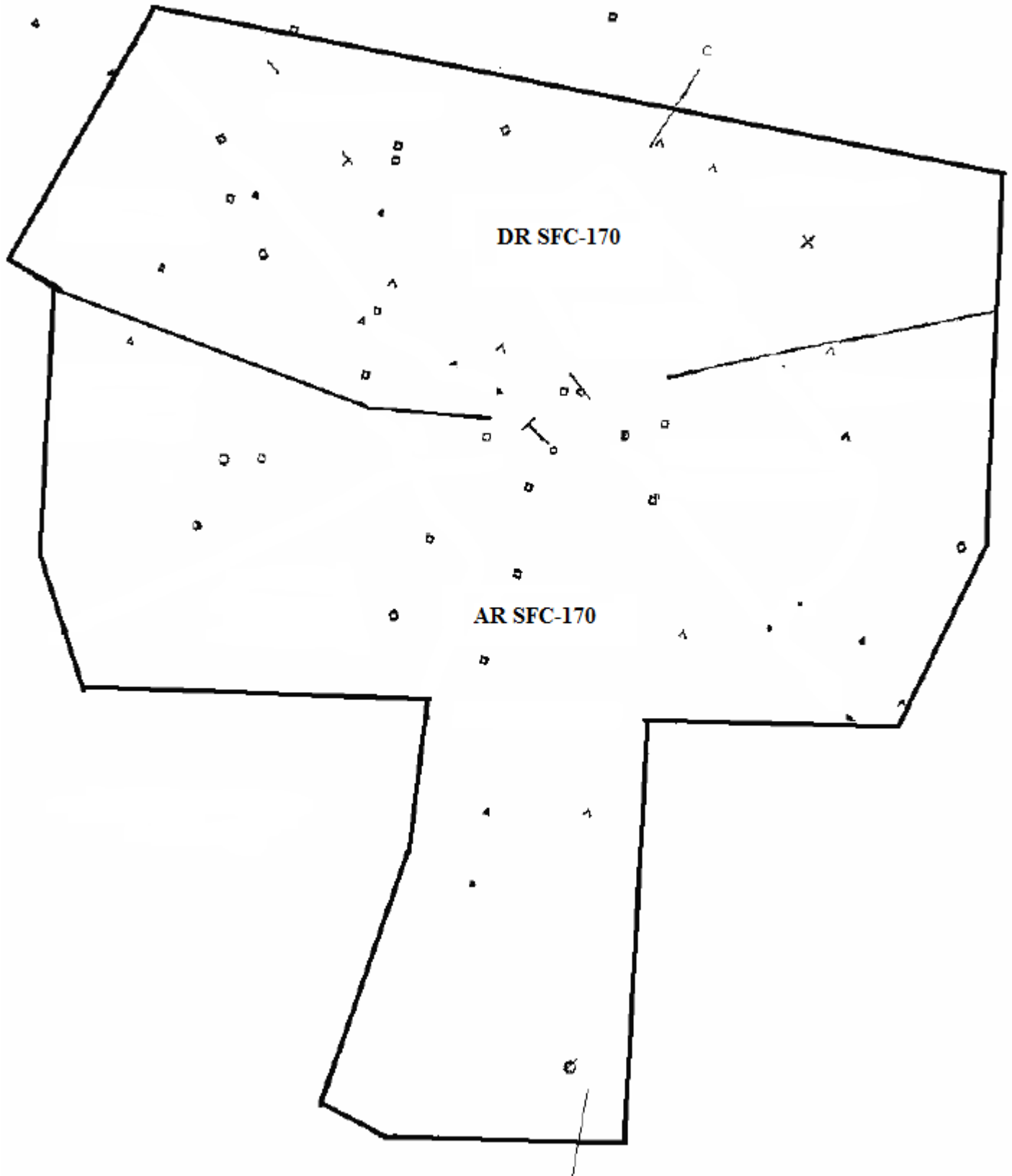
3 For VFR arrivals originating in DR airspace with a planned downwind between TUS and DMA, DR shall instruct the aircraft to enter downwind at or above 4,000' and handoff the aircraft to AR. DR shall change the aircraft to TUS Tower's frequency at or prior to the fairgrounds (Map Fix Name: FRGRNDS) after the handoff is completed.

(b) Departures

1 Southbound IFR departures (entering AR airspace) shall be assigned heading 140 to intercept the filed route (e.g., J92, V395, etc.).

2 Departures from TUS or DMA for pattern work at DMA shall be assigned heading 090 and 8000'

AIRSPACE DELEGATION – NORTHWEST FLOW (TUS RWY 29 / DMA RWY 30)



2-10. TUS Runway 21 Primary w/ 11 Secondary – DMA Runway 12

a. Utilize the Southeast Flow Video Map, and for TUS Arrivals, use the procedures in paragraph 2-8.

b. Position Responsibilities

(1) Arrival Radar (AR)

(a) AR shall sequence all TUS arrivals. Aircraft shall be cleared for an instrument approach to Runway 11, circle-to-land Runway 21, or a visual approach to Runway 21.

(b) Aircraft requesting to land the secondary runway (11L/R) shall be sequenced with the normal traffic flow for the primary runway and have the landing runway displayed in the scratch pad.

(c) AR shall provide a minimum of 5 NM in-trail spacing between all Runway 21 IFR arrivals.

(2) Departure Radar (DR)

(a) VFR arrivals from the south and west 6,500' and below:

1 Shall be vectored to the Mission for a right traffic pattern.

2 Shall be handed off to AR as soon as practical for sequencing. DR shall continue to observe the aircraft and protect for holding and successive arrivals until the aircraft crosses the Runway 11L final approach course.

(b) VFR arrivals planning a left base entry to Runway 21:

1 Shall have "R21" in the scratch pad and be handed off to AR.

2 AR shall do one of the following:

a. Accept the handoff

b. Accept the handoff and issue sequence to DR

c. Advise DR "unable."

3 Unless advised "unable," DR shall instruct aircraft to enter left base and/or vector aircraft to comply with the sequence issued by AR and transfer communications to TUS Tower. If advised "unable," vector aircraft south of TUS for right traffic per 2-10.(2)(a) above.

2-11. TUS Runway 21 Primary w/ 29 Secondary – DMA Runway 30

a. Utilize the Northwest Flow Video Map, and for TUS arrivals, use the procedures in Paragraph 2-9.

b. Position Responsibilities

(1) Arrival Radar (AR)

(a) AR shall sequence all TUS arrivals. Aircraft shall be cleared for an instrument approach to Runway 29, circle-to-land Runway 21, or a visual approach to Runway 21.

(b) Aircraft requesting to land the secondary runway (29R/L) shall be sequenced with the normal traffic flow for the primary runway and have the landing runway displayed in the scratch pad.

(c) AR shall provide a minimum of 5 NM in-trail spacing between all Runway 21 IFR arrivals.

(d) For VFR arrivals being vectored to a left traffic pattern, transfer control and communications to TUS Tower no later than the “Bridge.”

(2) Departure Radar (DR)

(b) VFR arrivals planning a left base entry to Runway 21:

1 Shall have “R21” in the scratch pad and be handed off to AR.

2 AR shall do one of the following:

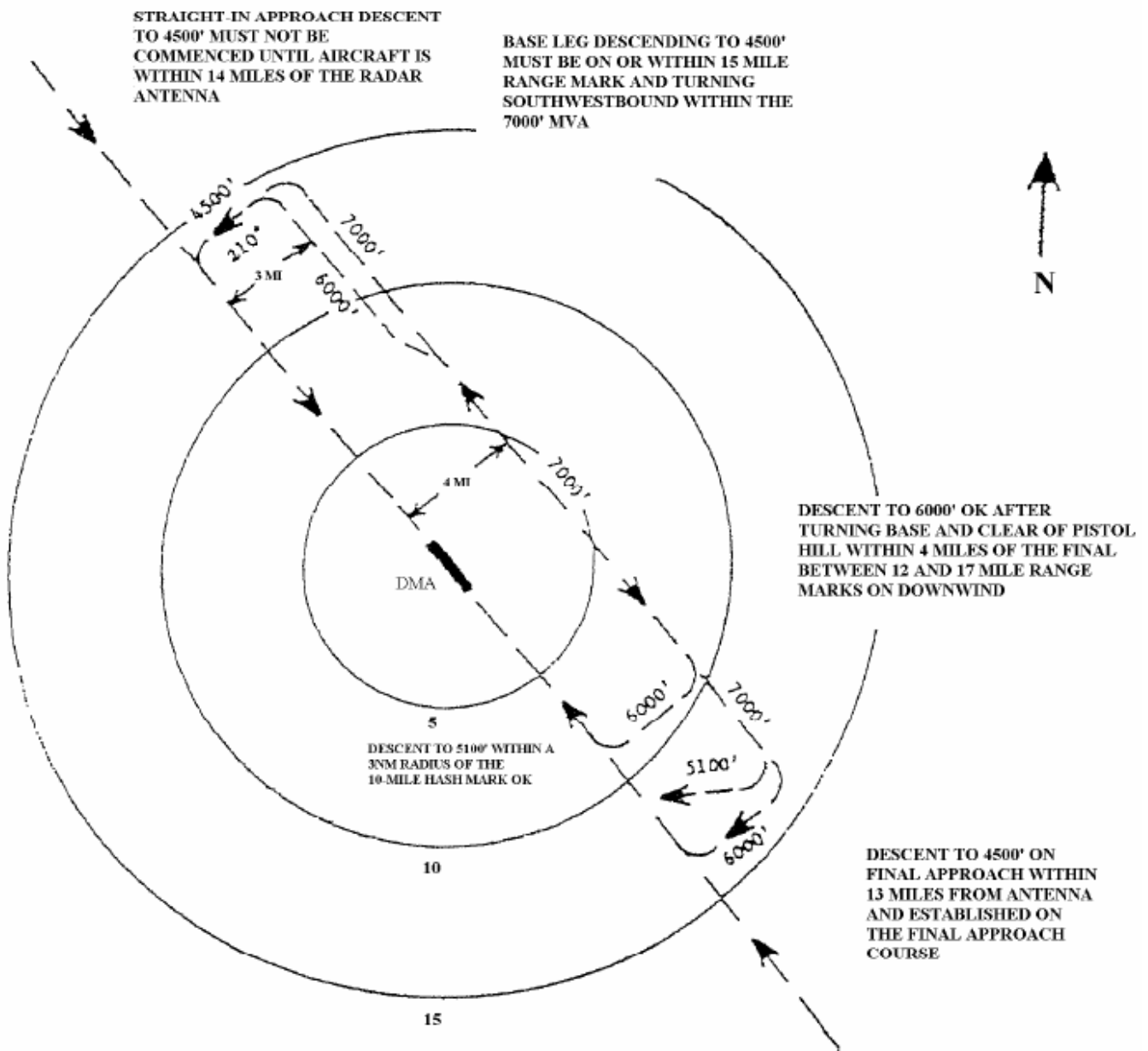
a. Accept the handoff

b. Accept the handoff and issue sequence to DR

c. Advise DR “unable.”

3 Unless advised “unable,” DR shall instruct aircraft to enter right base and/or vector aircraft to comply with the sequence issued by AR and transfer communications to TUS Tower. If advised “unable,” vector aircraft west of TUS for left traffic.

Appendix 1 – DMA Radar Pattern



Appendix 2 – TUS Class C Airspace

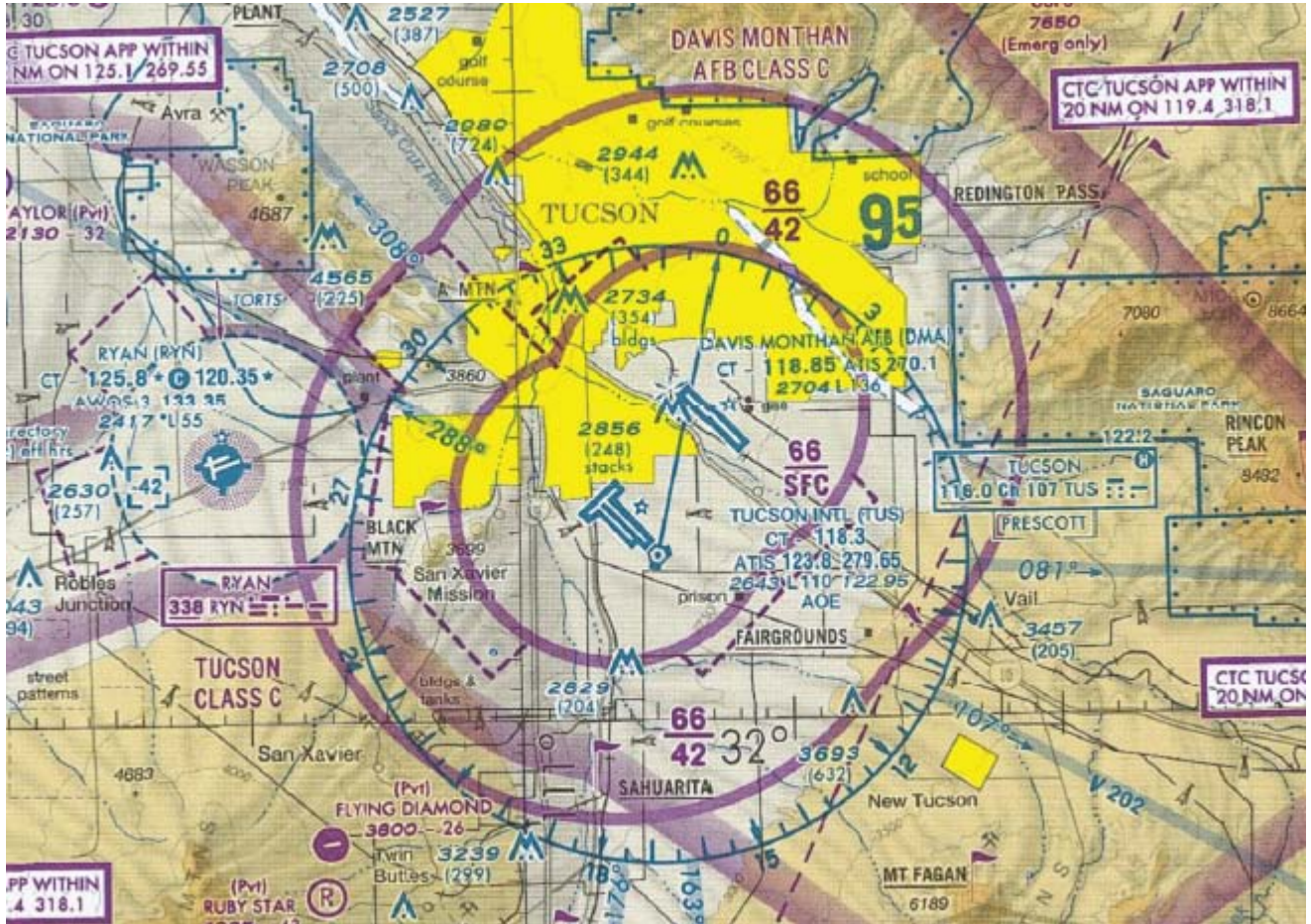


Image Courtesy Skyvector.com

Appendix 3 – Frequency Assignments

Arrival Radar (AR)*

Frequency – 119.4

Voice Server – rw.liveatc.net

Voice Channel – U90_AR

Departure Radar (DR)

Frequency – 125.1

Voice Server – rw.liveatc.net

Voice Channel – U90_DR

* AR is the primary, combined position for U90 TRACON