

beam transmissions must not exceed 10 microseconds. The rise time at the edge of each clearance pulse must be less than 10 microseconds. Within the fly-right clearance guidance section, the fly-right clearance guidance signal shall exceed scanning beam antenna sidelobes and other guidance and OCI signals by at least 5 dB; within the fly-left clearance guidance sector, the fly left clearance guidance signal shall exceed scanning beam antenna sidelobes and all other guidance and OCI signals by at least 5 dB; within the proportional guidance sector, the clearance guidance signals shall be at least 5dB below the proportional guidance signal. Optionally, clearance guidance may be provided by scanning throughout the approach guidance sector. For angles outside the approach azimuth proportional coverage limits as set in Basic Data Word One (Basic Data Word 5 for back azimuth), proper decode and display of clearance guidance must occur to the limits of the guidance region.

Where used, clearance pulses shall be transmitted adjacent to the scanning beam signals at the edges of proportional coverage as shown in Figure 8. The proportional coverage boundary shall be established at one beamwidth inside the scan start/stop angles, such that the transition between scanning beam and clearance signals occurs outside the proportional coverage sector. When clearance pulses are provided in conjunction with a narrow beamwidth (e.g., one degree) scanning antenna, the scanning beam antenna shall radiate for 15 microseconds while stationary at the scan start/stop angles.

(3) *Data function format.* Basic data words provide equipment characteristics and certain siting information. Basic data words must be transmitted from an antenna located at the approach azimuth or back azimuth site which provides coverage throughout the appropriate sector. Data function timing must be in accordance with Table 7a.

TABLE 6—ANGLE SCAN TIMING CONSTANTS

| Function | Max value of T_r (usec) | T_a (usec) | V(deg/usec) | T_m (usec) | Pause time (usec) | T_i (usec) |
|----------------------------------|---------------------------|--------------|-------------|--------------|-------------------|--------------|
| Approach azimuth | 13,000 | 6,800 | 0.02 | 7,972 | 600 | 13,128 |
| High rate approach azimuth | 9,000 | 4,800 | 0.02 | 5,972 | 600 | 9,128 |
| Approach elevation | 3,500 | 3,350 | 0.02 | 2,518 | 400 | N/A |
| Back azimuth | 9,000 | 4,800 | -0.02 | 5,972 | 600 | 9,128 |

TABLE 7a—BASIC DATA FUNCTION TIMING

| Event | Event time slot begins at: ¹ | |
|---|---|---------------------|
| | 15.625 kHz clock pulse (number) | Time (milliseconds) |
| Preamble | 0 | 0 |
| Data transmission (bits I_{13} – I_{30}) | 25 | 1,600 |
| Parity transmission (bits I_{31} – I_{32}) | 43 | 2,752 |
| End function (airborne) | 45 | 2,880 |
| End guard time: end function (ground) | | 3,100 |

¹ The previous event time slot ends at this time.

TABLE 7b—AUXILIARY DATA FUNCTION TIMING—(DIGITAL)

| Event | Event time slot begins at: | |
|--|---------------------------------|---------------------|
| | 15.625 kHz clock pulse (number) | Time (milliseconds) |
| Preamble | 0 | 0 |
| Address transmission (bits I_{13} – I_{20}) | 25 | 1,600 |
| Data transmission: (bits I_{21} – I_{69}) | 33 | 2,112 |

TABLE 7b—AUXILIARY DATA FUNCTION TIMING—(DIGITAL)—Continued

| Event | Event time slot begins at: | |
|---|---------------------------------|---------------------|
| | 15.625 kHz clock pulse (number) | Time (milliseconds) |
| Parity transmission (bits I_{70} – I_{76}) | 82 | 5,248 |
| End function (airborne) | 89 | 5,696 |
| End guard time; end function (ground) | | 5,900 |

TABLE 7c—AUXILIARY DATA FUNCTION TIMING—(ALPHANUMERIC)

| Event | Event time slot begins at: | |
|--|---------------------------------|---------------------|
| | 15.615 kHz clock pulse (number) | Time (milliseconds) |
| Preamble | 0 | 0 |
| Address transmission (bits I_{13} – I_{20}) | 25 | 1,600 |
| Data transmission: (bits I_{21} – I_{76}) | 33 | 2,112 |
| End function (airborne) | 89 | 5,696 |