# Zenith Distance/Vertical Angle

For use of this form, see FM 3-34.331; the proponent agency is TRADOC

STATION ______________________ DATE ________ 19 _____

INSTRUMENTMAN ______________________ INSTRUMENT ____________

RECORDER ______________________ WEATHER ____________

| OBJECT OBSERVED | CHRON TIME | | | STOP WATCH | TEL D/R | CIRCLE | |
|---|---|---|---|---|---|---|---|
| | H | M | S | | | | |
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| MICRO | | MEAN | ZEN DIST | REMARKS | LEVELS | |
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| 1ST | 2D | | | | W | E |
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DA Form 5817-R, AUG 89

## General Survey Notes

For use of this form, see FM 3-34.331; the proponent agency is TRADOC.

| Project | | Weather | | | Wind | | Instrument | | | Date | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation | | Location | | | Temp | | Organization | | | Page no. | No. of Pages |
| Point | H Dist | H Scale | RI | V Scale | Prod ± | RC − | DE ± | HI | Elev. | Remarks | |
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DA Form 5818-R, AUG 89

**Field Sheet, Infrared**

For use of this form, see FM 3-34.331; the proponent agency is TRADOC.

| | | | | | | |
|---|---|---|---|---|---|---|
| PROJECT | | | | | | |
| ORGANIZATION | | | DATE | | APPROX DISTANCE | |
| ZERO CORRECTION * | CALIBRATION DATE | | OBSERVER | | RECORDER | |
| INSTRUMENT STATION | | H.I. | ELEVATION | ELEVATION INSTRUMENT | ECCENTRICITY * TOWARD AWAY | INST NO |
| REFLECTOR STATION | | H.I. | ELEVATION | ELEVATION REFLECTOR | ECCENTRICITY * TOWARD AWAY | PRISM NO |

| METEOROLOGICAL READINGS | | | | ZD INSTRUMENT TO REFLECTOR | | |
|---|---|---|---|---|---|---|
| | TIME | PRESSURE (Hg) | TEMP. (DRY) | DISTANCE (meters) | | |
| | | IN. | F° | 1 | | |
| INSTRUMENT | | | | 2 | | |
| REFLECTOR | | | | 3 | | |
| SUM | | | | 4 | | |
| MEAN | | | | 5 | | |
| CORRECTION FACTOR (PPM) | | | | 6 | | |
| | | | | 7 | | |
| | | | | 8 | | |
| | | | | 9 | | |
| | | | | 10 | | |
| | | | | SUM | | |

$$PRODUCT = UD \times PPM$$
$$RC = PRODUCT \times 10^{-6}$$
$$T = UD \pm Z \pm RC$$
$$H' = (T)^2 - (d)^2$$
$$H' = \sin ZD \times T$$
$$H_{FT} = H' \times 3.280840$$

| | | | | |
|---|---|---|---|---|
| UD | | MEAN UNCORRECTED SLOPE DISTANCE (UD) | | |
| PPM | | ZERO CORRECTION° (Z) | | |
| PRODUCT | | REFRACTIVE INDEX CORRECTION (RC) | | |
| RC | | CORRECTED SLOPE DISTANCE (T) | | |
| DIFF. OF ELEV. (d) | | UNCORRECTED HORIZON. DISTANCE (H') | | |
| ° Obtained from Instrument Calibration. * Toward Eccentricity must be ADDED. Away Eccentricity must be SUBTRACTED. | | ECCENTRIC CORRECTION * (EC) | | |
| | | HORIZON DISTANCE ($H_M$) / ($H_{FT}$) | | |

REMARKS

| COMPUTED BY | DATE | CHECKED BY | DATE | PAGE OF |
|---|---|---|---|---|
| | | | | |

**DA Form 5819-R, AUG 89**

# Three-Wire Leveling

For use of this form, use FM 3-34.331; the proponent agency is TRADOC.

| Project | Location | Organization | | | |
|---|---|---|---|---|---|
| Observer | Recorder | Instrument | Sun | Wind | Weather |

| From | To | Date | Time | Line or Net | Page no. | No. of pgs. |
|---|---|---|---|---|---|---|

| Station | Backsight Face of rod | Mean | Back of rod | Interval | Sum of intervals | Foresight Face of rod | Mean | Back of rod | Interval | Sum of intervals | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |

INST OP INT _____

1st COMP INT _____

2nd COMP INT _____

DA Form 5820-R, AUG 89

# Airfield Compilation Report

For use of this form, see FM 3-34.331; the proponent agency is TRADOC.

| | | | | | | |
|---|---|---|---|---|---|---|
| SURVEY AGENCY: 1 | | | | | | |
| AIRPORT NAME | | | | IDENTIFIER | | |
| CITY 4 | | STATE 5 | EDITION 6 | | SURVEY DATE 7 | |
| AIRPORT REFERENCE POINT | 8 | LATITUDE 9 | LONGITUDE 10 | | Δ CL OR Θ ANGLE 11 | |
| AIRPORT LOCATION POINT | 12 | LATITUDE 13 | LONGITUDE 14 | | DECLINATION 15 | |
| AIRPORT ELEVATION (In feet) 16 | | LOCATED 17 | | | CONTROL TOWER FLOOR ELEVATION (In feet) 18 | |
| 19 DATUM | | | | POSITION CODE – 1. Field Survey 2. Photogrammetric 3 .Other | | |

| AIRPORT DATA | ELEVATION | LATITUDE | LONGITUDE | YR-CODE | REMARKS | OFFICE CODE |
|---|---|---|---|---|---|---|
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
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| RUNWAY | DSPLCD THR LENGTH | RWY END ELEVATION | LATITUDE | LONGITUDE | WIDTH / LENGTH | GEODETIC AZ. (N) / MAG. BEARING (N) | OFFICE CODE |
|---|---|---|---|---|---|---|---|
| | | | | | | | 34 |
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DA Form 5821-R, AUG 89

# Precision Approach Radar (GCA) Data

For use of this form, see FM 3-34.331; the proponent agency is TRADOC.

| AIRPORT NAME | | |
|---|---|---|
| CITY | STATE | SURVEY DATE (Mo./Day/Year) |

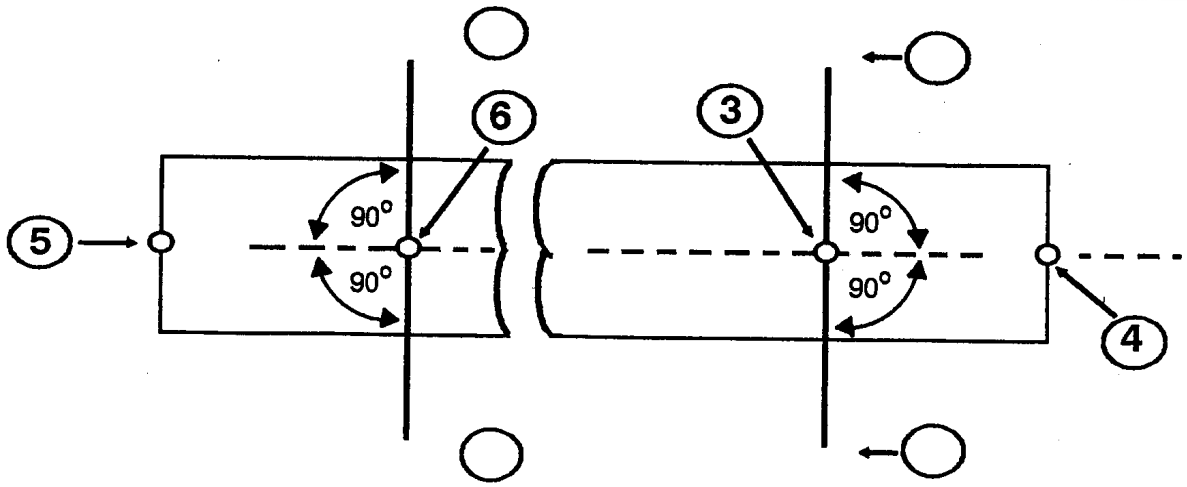
| PAR COMPONENTS AND PERTINENT RUNWAY DATA<br>Numbered items correspond to the diagram below. | LATITUDE | LONGITUDE | ELEVATION |
|---|---|---|---|
| | (1 / 100 Second) | | (1 / 10 Foot) |
| 1. PAR Antenna | | | |
| 2. Touchdown Reflector | | | |
| 3. The point on runway C/L closest to the Touchdown Reflector (Item 2). | | | |
| 4. Runway C/L End. | | | |
| 5. Runway C/L End. | | | |
| 6. The point on runway C/L closest to PAR Antenna. | | | |
| 7. Displaced Threshold (If applicable). | | | |

PAR Antenna – Enter Numeral 1 in circle to indicate PAR Antenna Position.

Touchdown Reflector – Enter Numeral 2 in circle to indicate Touchdown Reflector.

| PAR – GROUND DISTANCE | | | |
|---|---|---|---|
| 3 to 7 FEET | 1 to 6 FEET | 2 to 3 FEET | GEODETIC AZIMUTH SOUTH |
| (If applicable) | 3 to 6 FEET | 3 to 4 FEET | 4 to 5 ° ' " |

ADD APPLICABLE NUMBERS TO CIRCLES AND RUNWAY ENDS. SHOW NORTH ARROW.




DA Form 5822-R, AUG 89

# Instrument Landing System Data

For use of this form, see FM 3-34.331; the proponent agency is TRADOC.

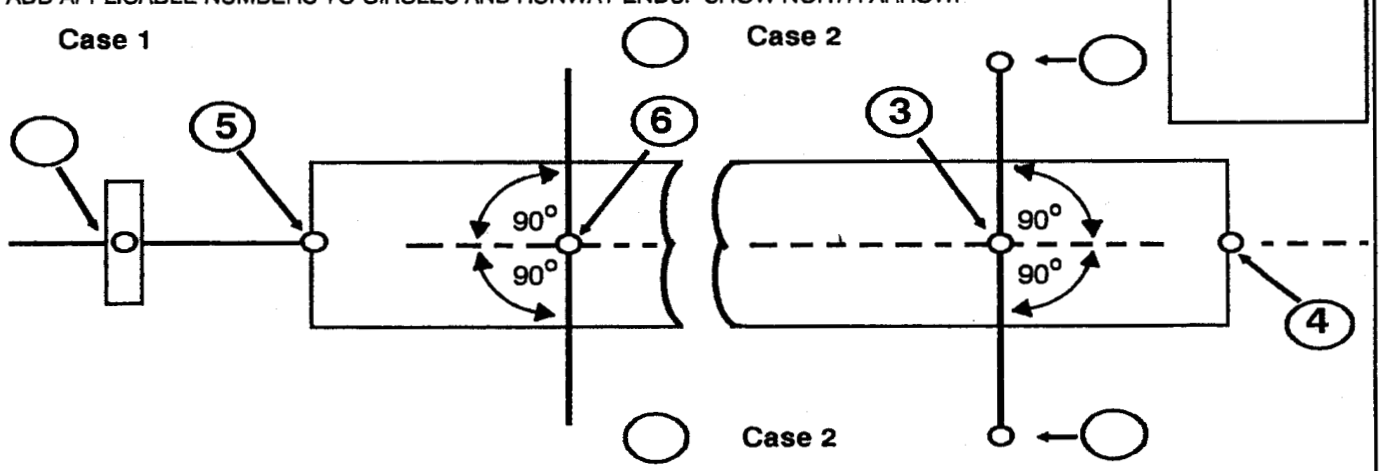
| AIRPORT NAME | | |
|---|---|---|
| CITY | STATE | SURVEY DATE (Mo./Day/Year) |

| ILS COMPONENTS AND PERTINENT RUNWAY DATA<br>Numbered items correspond to the diagram below. | LATITUDE | LONGITUDE | ELEVATION |
|---|---|---|---|
| | (1 / 100 Second) | | (1 / 10 Foot) |
| 1. Localizer Antenna (Course Array): Point on ground beneath the localizer antenna. | | | |
| 2. Glide Slope Indicator (GSI): Center of the base supporting the antenna. | | | |
| 3. The point on runway C/L closest to the base of the Glide Slope Indicator Antenna (Item 2). | | | |
| 4. Runway C/L End. | | | |
| 5. Runway C/L End. | | | |
| 6. The point on runway C/L closest to the base of the offset Localizer (Case 2). | | | |

| MARKERS | LATITUDE | LONGITUDE | GROUND DISTANCE TO END OF RUNWAY |
|---|---|---|---|
| | (1 / 10 Second) | | |
| INNER OR B. C. MARKER (RUNWAY END) | | | feet |
| MIDDLE MARKER (RUNWAY END) | | | feet |
| OUTER MARKER (RUNWAY END) | | | feet |

| LOCALIZER — GROUND DISTANCE | | | | | | |
|---|---|---|---|---|---|---|
| Case 1 (normal) | | Case 2 (offset) | | | | |
| 1 to 5 | FEET | 1 to 6 | FEET | 2 to 3 | FEET | GEODETIC AZIMUTH SOUTH<br>° ′ ″ |
| | | 5 to 6 | FEET | 3 to 4 | FEET | 4 to 5 |

ADD APPLICABLE NUMBERS TO CIRCLES AND RUNWAY ENDS. SHOW NORTH ARROW.




DA Form 5827-R, AUG 89