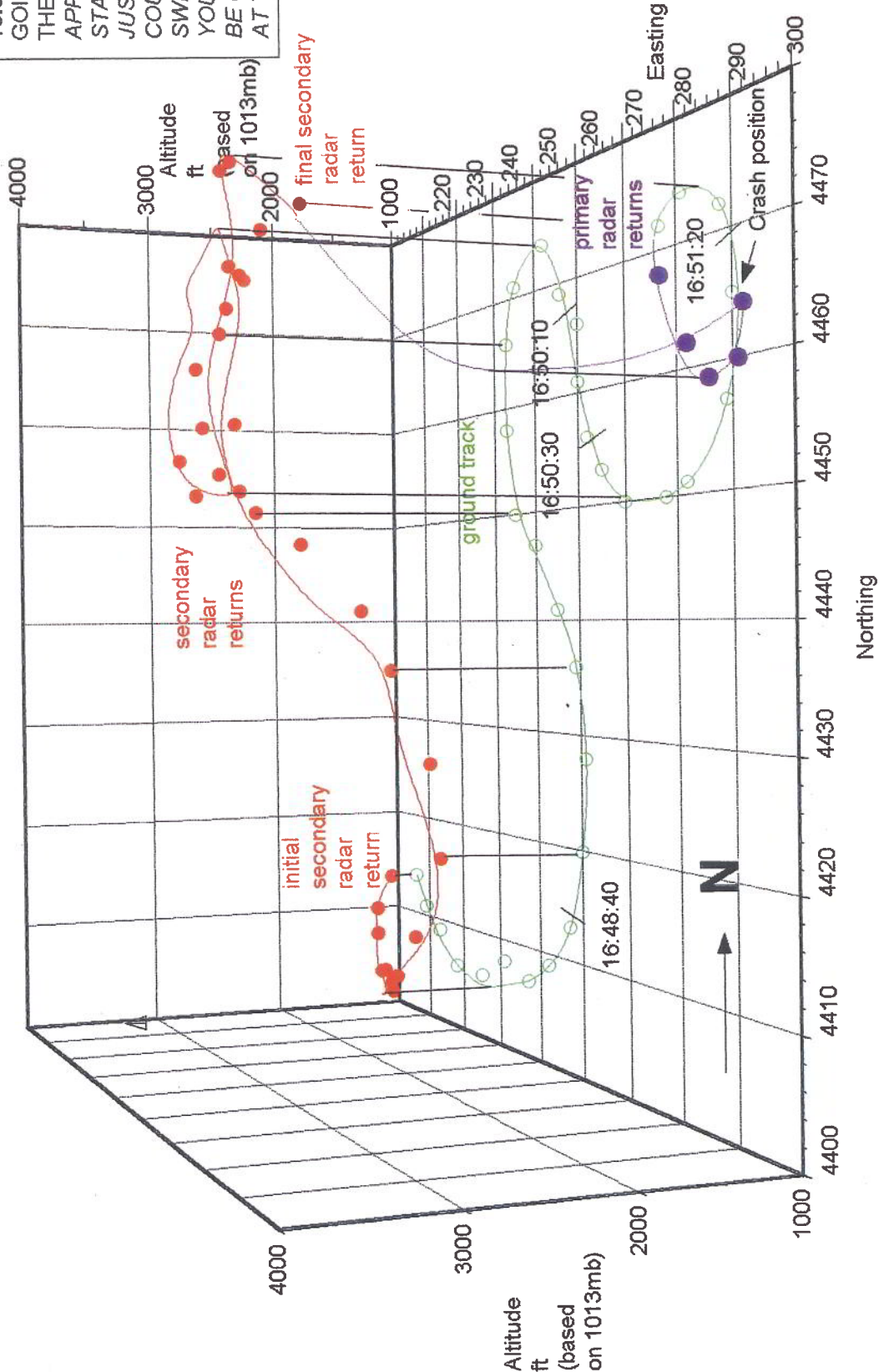


TRACK PLOT G-OEAA

16:50:10 APP CON - I SEE YOU CARRYING OUT AN ORBITER JUST TELL ME WHAT I CAN DO TO HELP
 16:50:30 APP CON - YOU'RE IN A RIGHTHAND TURN AT THE MOMENT ER LET ME SEE ER JUST WAIT FOR ANOTHER SWEEPS YOU'RE GOING STRAIGHT AT THE MOMENT AND YOU'RE HEADING SOUTHEAST

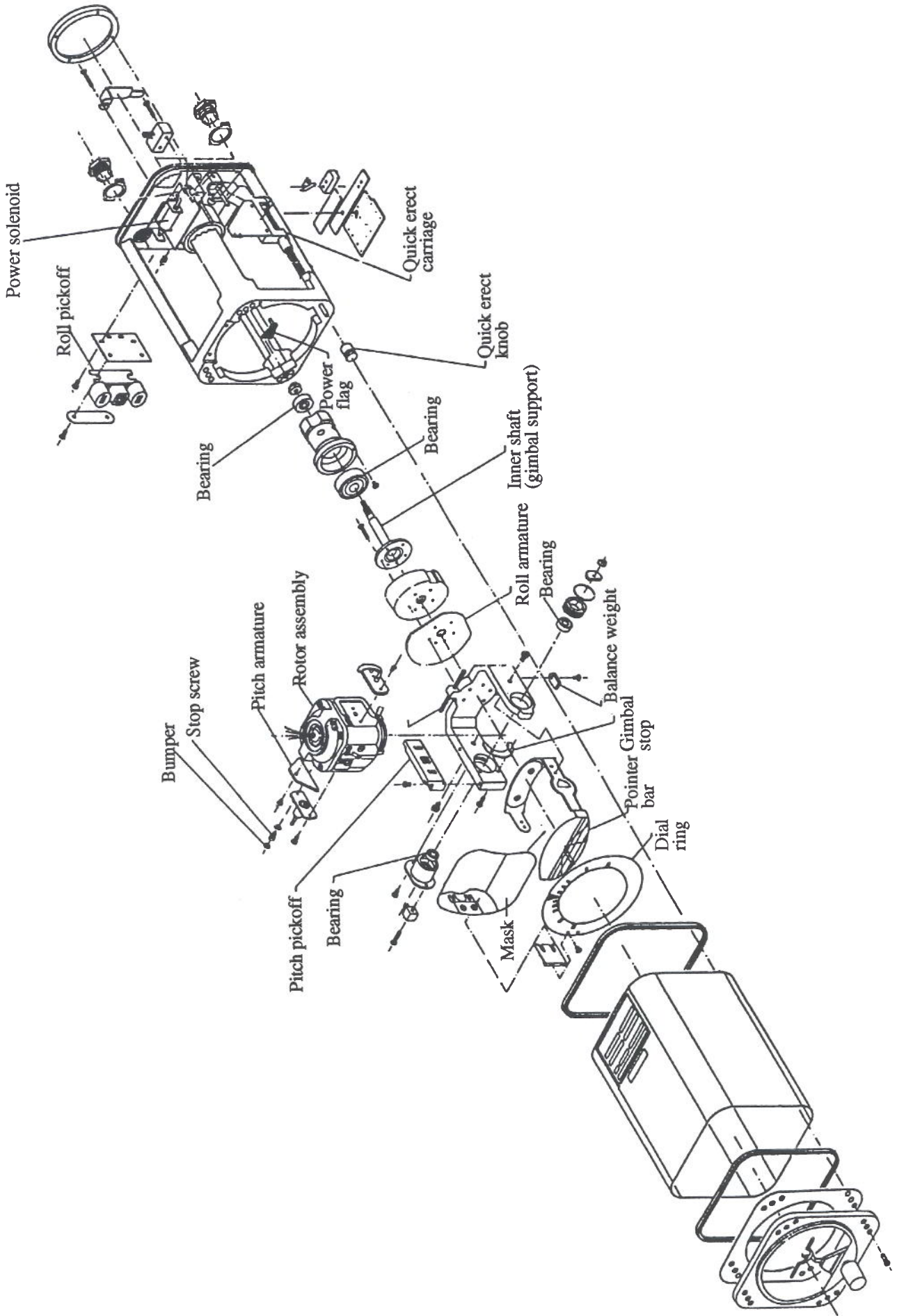
16:48:40 816 - ER KNIGHTWAY ER EIGHT ONE SIX WE'VE GOT A PROBLEM WITH THE ARTIFICIAL HORIZON SIR AND WE'D LIKE TO COME BACK

16:51:20 816 - ARE WE GOING STRAIGHT AT THE MOMENT SIR
 APP CON - JUST STANDBY ER JUST WAIT FOR A COUPLE OF SWEEPS YEAH YOU LOOK TO BE GOING STRAIGHT AT THE MOMENT



APPENDIX B

TYPICAL ARTIFICIAL HORIZON (AIM 500 SERIES)



AIR TRAFFIC CONTROL

**CONDENSED TRANSCRIPT OF COMMUNICATION BETWEEN LEEDS
BRADFORD ATC AND KNIGHTWAY 816 [G-OEAA]**

Key: Plain typescript = First officer of G-OEAA
 Italic typescript = ATC
 (*) = time signal as shown on left hand column

Aerodrome Control 120.300 Mhz

- 1641:10 LEEDS TOWER GOOD EVENING ITS THE KNIGHTWAY (*) EIGHT ONE ER
 SIX REQUEST START
- KNIGHTWAY EIGHT ONE SIX GOOD EVENING START UP
 APPROVED RUNWAY THREE TWO FOR DEPARTURE
 CORRECTION RUNWAY ONE FOUR FOR DEPARTURE*
- 1641:20 COPIED START APPROVED EIGHT ONE SIX (*)
- 1642:20 LEEDS TOWER (*) KNIGHTWAY EIGHT ONE SIX FOR TAXY
- KNIGHTWAY EIGHT ONE SIX HARD RIGHT TURN TAXY TO
 HOLDING POINT XRAY*
- 1642:30 HARD RIGHT HOLDING POINT XRAY KNIGHTWAY EIGHT ONE SIX(*)
- KNIGHTWAY EIGHT ONE SIX ENTER BACKTRACK LINE
 RUNWAY ONE FOUR*
- 1644:10 ENTER BACKTRACK LINE UP ONE FOUR KNIGHTWAY (*) EIGHT ONE SIX
- 1645:10 *KNIGHTWAY EIGHT ONE SIX CLEARANCE*
- GO AHEAD EIGHT ONE SIX
- 1645:20 *EIGHT ONE SIX YOUR EVENTUAL ROUTEING WILL BE
 NEWCASTLE FOR ABERDEEN AFTER DEPARTURE MAINTAIN
 RUNWAY (*) HEADING UNTIL DIRECTED CLIMB FLIGHT
 LEVEL NINE ZERO SQUAWK ONE FOUR SIX TWO*
- 1645:30 OUR EVENTUAL ROUTEING WILL BE (*)NEWCASTLE ABERDEEN CLIMB
 RUNWAY HEADING TIL ADVISED CLIMB FLIGHT LEVEL NINE ZERO AND
 SQUAWK ONE FOUR SIX TWO
- 1645:40 *KNIGHTWAY EIGHT ONE SIX AFFIRM SURFACE WIND IS ONE
 TWO ZERO FIVE KNOTS CLEAR TAKE (*) OFF*
- CLEAR TAKE OFF KNIGHTWAY EIGHT ONE SIX
- 1646:50 (*) EIGHT ONE SIX ROLLING
- ROGER KNIGHTWAY EIGHT ONE SIX*

1648:40 ER KNIGHTWAY ER EIGHT ONE SIX WE'VE GOT A PROBLEM WITH THE ARTIFICIAL HORIZON SIR AND WE'D LIKE TO (*) COME BACK

ROGER TURN LEFT RADAR HEADING THREE SIX ZERO

LEFT RADAR HEADING THREE SIX ZERO KNIGHTWAY EIGHT ONE SIX

1648:50 *KNIGHTWAY EIGHT ONE SIX (*) STOP CLIMB AT ALTITUDE THREE THOUSAND FEET Q N H ONE ZERO ZERO TWO*

STOP CLIMB AT THREE THOUSAND Q N H ONE ZERO ZERO TWO KNIGHTWAY EIGHT SIX

1649:00 (*) *EIGHT ONE SIX CONTACT APPROACH ONE TWO THREE DECIMAL SEVEN FIVE*

TO APPROACH ONE TWO THREE SEVEN FIVE KNIGHTWAY EIGHT ONE SIX

Approach Control 123.750 Mhz

1649:50 *KNIGHTWAY EIGHT ONE SIX LEEDS DO YOU READ*

1650:00 EIGHT (*) ONE SIX GO AHEAD

KNIGHTWAY EIGHT ONE SIX SIR I DON'T WANT TO ADD TO YOUR WORK LOAD BUT IF YOU JUST ER SQUAWK ZERO FOUR TWO THREE PLEASE WHEN YOU'VE GOT A MOMENT

1650:10 ZERO FOUR TWO (*) THREE EIGHT ONE SIX

I SEE YOU CARRYING OUT AN ORBIT ER JUST TELL ME WHAT I CAN DO TO HELP

ARE WE GOING STRAIGHT AT THE MOMENT SIR

1650:30 *YOU'RE IN A RIGHTHAND TURN AT THE MOMENT ER LET ME JUST SEE (*) ER JUST WAIT FOR ANOTHER SWEEP YES YOU'RE GOING STRAIGHT AT THE MOMENT AND YOU'RE HEADING SOUTHEAST*

1650:40 ER RADAR RADAR VECTORS SLOWLY BACK TO ONE FOUR THEN SIR (*) PLEASE

RADAR BACK TO ONE FOUR OKAY THEN TURN RIGHT HEADING THREE FOUR ZERO

RIGHT THREE FOUR ZERO KNIGHTWAY EIGHT ONE SIX

1651:00 *IF YOU'RE GOING LEFT CONTINUE LEFT TURN DON'T STOP IT FOR ME
YOU CON- CAN CONTINUE GOING LEFT HEADING (*) THREE THREE ZERO
LEFT THREE THREE ZERO KNIGHTWAY EIGHT ONE SIX*

1651:20 *ARE WE GOING STRAIGHT AT THE MOMENT SIR*

*ER JUST STANDBY ER JUST WAIT FOR A COUPLE OF SWEEPS
YEAH YOU LOOK TO BE GOING STRAIGHT AT THE MOMENT*

1651:30 *(*) ANY REPORTS OF THE TOPS SIR*

*NOTHING REPORTED BUT I'VE GOT A DEPARTURE JUST GONE
I'LL CALL HIM*

1651:40 *GOLF GOLF OSCAR LEEDS YOU (*) MIGHT BE ABLE TO HELP ME
WHA- ER WHAT'S THE CLOUD LIKE AT FOUR THOUSAND*

G-BAGO *ER WE'RE STILL IN CLOUD AT FOUR THOUSAND AND WE'RE QUITE
HAPPY TO CLIMB TO FIND THE TOPS FOR YOU IF YOU LIKE*

1651:50 *(*)GOLF OSCAR YES OKAYI F YOU WOULDN'T MIND DOING THAT
PLEASE LET ER DONT COMPROMISE YOURSELF LET ME KNOW IF
THERE'S ER THAT IF YOU GET YOURSELF INTO TROUBLE WILL
YOU DO THAT CARRYING OUT A RIGHT HAND ORBIT IN YOUR
PRESENT POSITION PLEASE GOLF OSCAR*

1652:10 *KNIGHTWAY EIGHT ONE SIX LEEDS DO YOU READ*

*KNIGHTWAY EIGHT ONE SIX KNIGHTWAY EIGHT ONE SIX LEEDS
DO YOU READ*

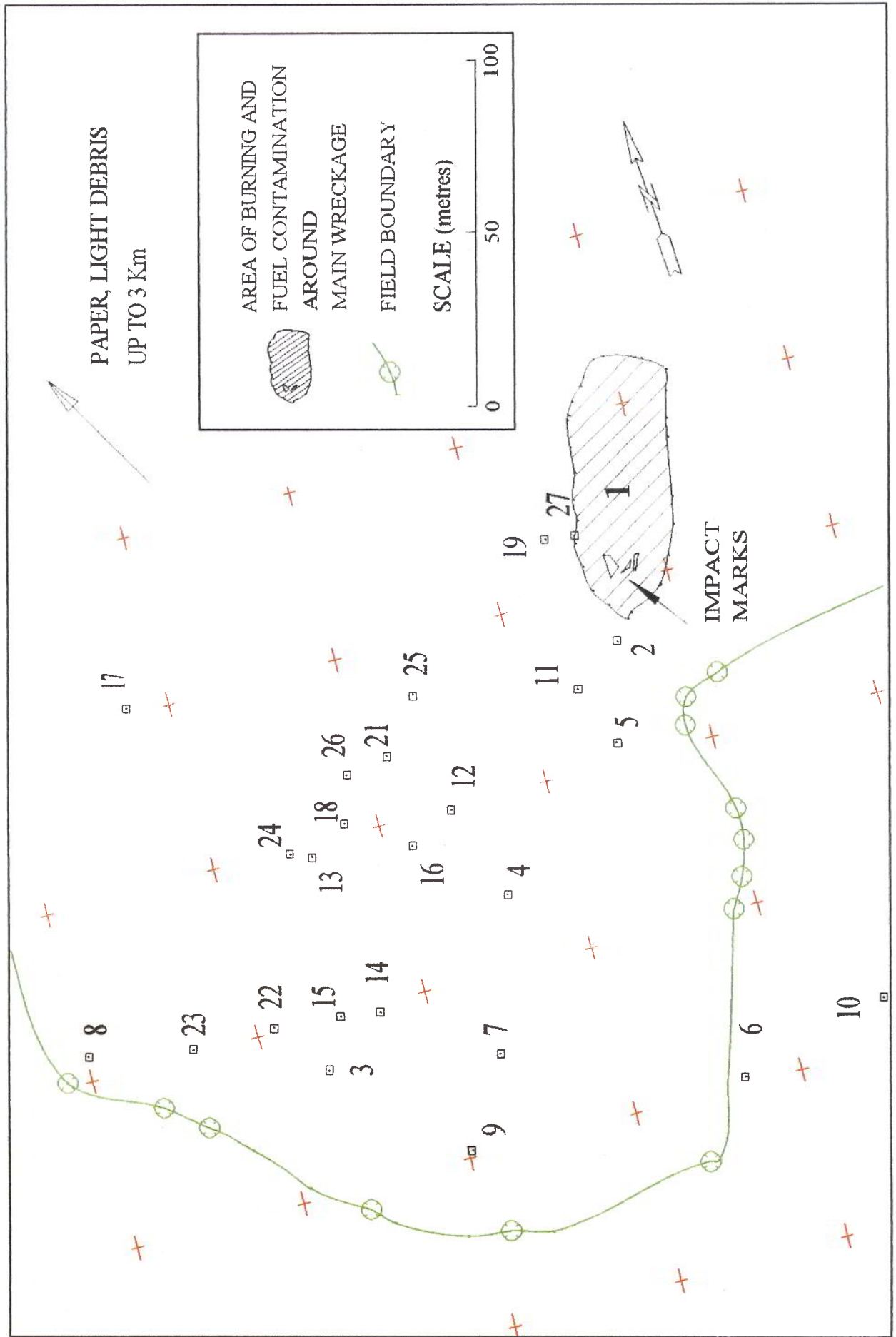
1652:30 *KNIGHTWAY EIGHT ONE SIX KNIGHTWAY EIGHT ONE (*) SIX LEEDS DO
YOU READ*

DIAGRAM SHOWING WRECKAGE DISTRIBUTION

Key:

- | | |
|-----------------|--|
| 1 | Main wreckage comprising fuselage, fin and rudder, right tailplane, left wing, left engine, right engine and propeller |
| 2 | Right wing torque box outboard section |
| 3 | Right wing leading edge mid-section |
| 4 | Right wing leading edge outboard section |
| 5 | Right engine lower cowling including intake |
| 6 | Right aileron |
| 7 | Right tailplane |
| 8 | Right elevator outboard section |
| 9 | Right elevator mid- section |
| 10 | Right elevator inboard section |
| 11 | Left elevator outboard section |
| 12 | Left aileron outboard section |
| 13 | Left wingtip (approx. half) |
| 14 | Fuselage skin panel |
| 15 | Right wing aileron shroud |
| 16 | Right wingtip |
| 17 | Piece of right wing/fuselage fairing |
| 18 | Right hand nacelle aft fairing |
| 19 | Left propeller |
| 20 | Right propeller and reduction gearbox |
| 21, 22, 23 & 24 | Pieces of fuselage cut by right propeller |
| 25 | Right propeller blade tip |
| 26 | Right overwing exit |
| 27 | Left overwing exit |

G-OEAA DISTRIBUTION OF MAJOR ITEMS OF WRECKAGE



ARTIFICIAL HORIZONS - TIMES TO FAILURE

