

RESEARCH DEPARTMENT

LLANIDLOES V.H.F. RELAY STATION: SUMMARY OF INSTALLATION

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for Head of Research Department

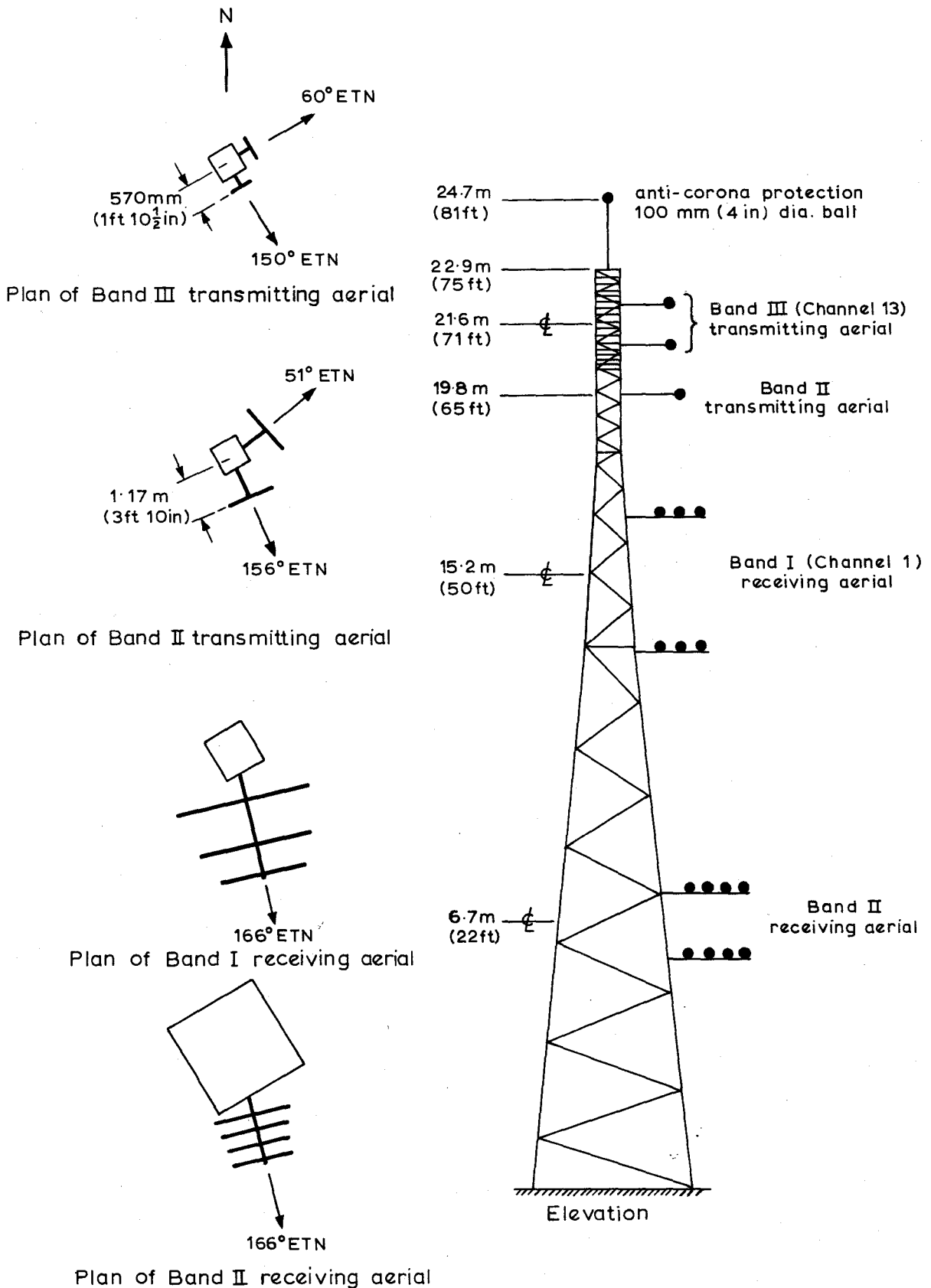


Fig. 1. General arrangement of aerials on tower

V.H.F. RELAY STATIONS : SUMMARY OF INSTALLATION  
TELEVISION

NAME: LLANIDLOES

SERVICE TRANSMISSIONS COMMENCED: 19th December 1966

SITE DATA

LOCATION: 0.8 km (0.5 miles)  
west of Llanidloes

GRID REFERENCE: SN 947843

HEIGHT, A.O.D.: 243.8 m (800 ft)

SUPPORT STRUCTURE

TYPE: Self-supporting tower

OVERALL HEIGHT: 22.9 m (75 ft)

GENERAL ARRANGEMENT

FIGURE: 1

FREQUENCIES

BAND: III

CHANNEL: 13

VISION CARRIER OFFSET: +16.875 kHz

SOUND CARRIER OFFSET: +16.875 kHz

TRANSMITTER

POWER: 8 watts (translator)

NOTES:

TRANSMITTING AERIAL

DESCRIPTION: Two horizontal  $\lambda/2$   
dipoles per tier, with tower  
screening

NUMBER OF TIERS: 2

MEAN HEIGHT: 21.6 m (71 ft) a.g.l.

FEEDERS

TRANSMITTING: T3319

RADIATION CHARACTERISTICS

POLARIZATION: Horizontal

MEAN E.R.P.: 5.8W

MAXIMUM E.R.P.: 14.2W

H.R.P.: Fig.2

PROGRAMME SOURCE

PARENT: Llandrindod Wells  
obtained by direct reception

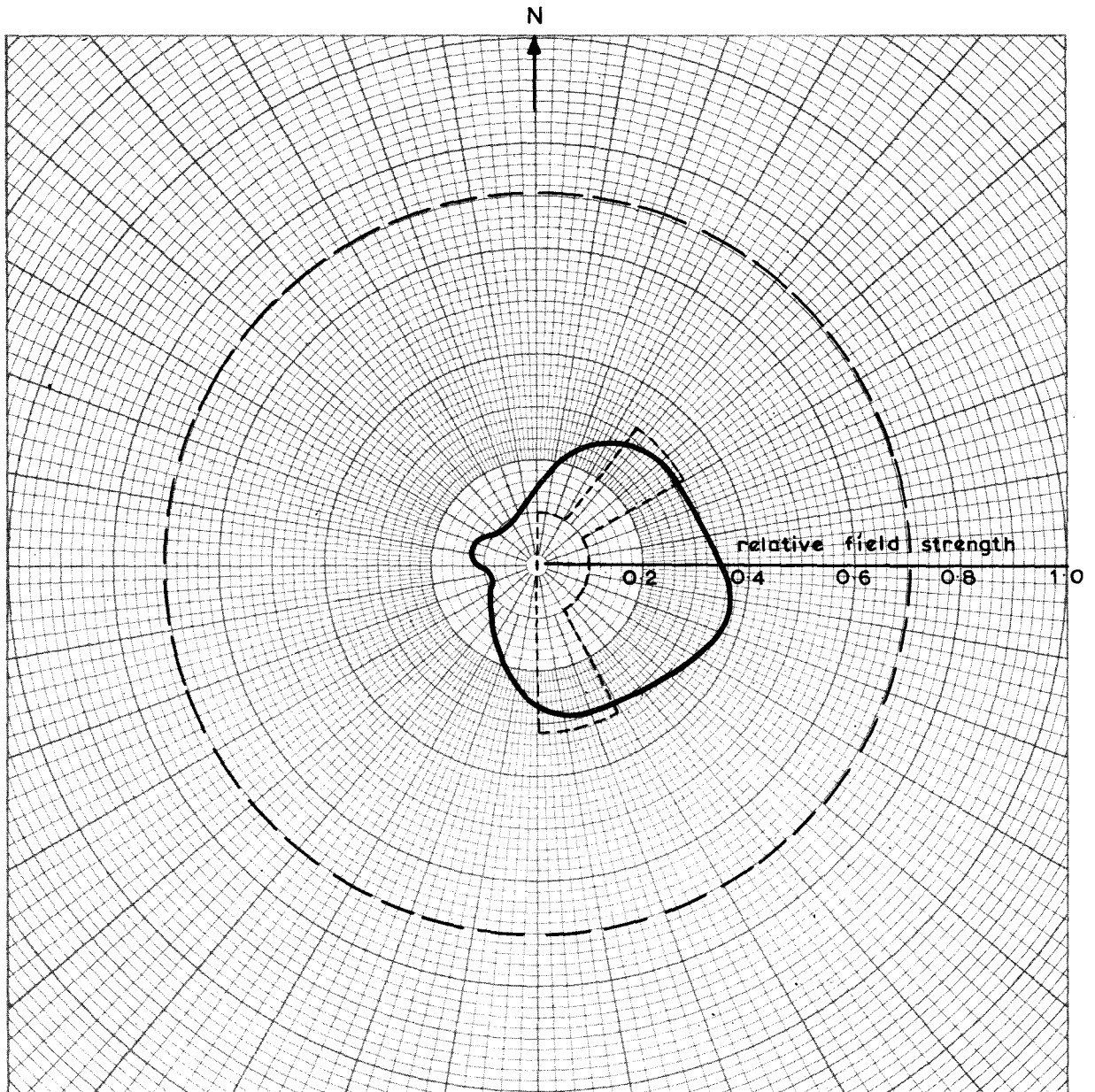


Fig. 2. Band III templet and horizontal radiation pattern

———— Maximum permissible E.R.P.  
 ———— Minimum desirable E.R.P.

Unit field corresponds to an E.R.P. of 100 W

V.H.F. RELAY STATIONS : SUMMARY OF INSTALLATION  
SOUND

NAME: LLANIDLOES

SERVICE TRANSMISSIONS COMMENCED: 6th February 1967

BAND II FREQUENCIES

RADIO 2: 88.1 MHz

RADIO 3: 90.3 MHz

RADIO 4: 92.5 MHz

RADIATION CHARACTERISTICS

POLARIZATION: Horizontal

MEAN E.R.P.: 3.6W

MAXIMUM E.R.P.: 4.9W

TRANSMITTER

POWER: 10 watts (translator)

H.R.P.: Fig.3

TRANSMITTING AERIAL

DESCRIPTION: Two horizontal  $\lambda/2$  dipoles

PROGRAMME SOURCE

PARENT: Llandrindod Wells  
obtained by direct reception

NUMBER OF TIERS: 1

MEAN HEIGHT: 19.8 m (65 ft) a.g.l.

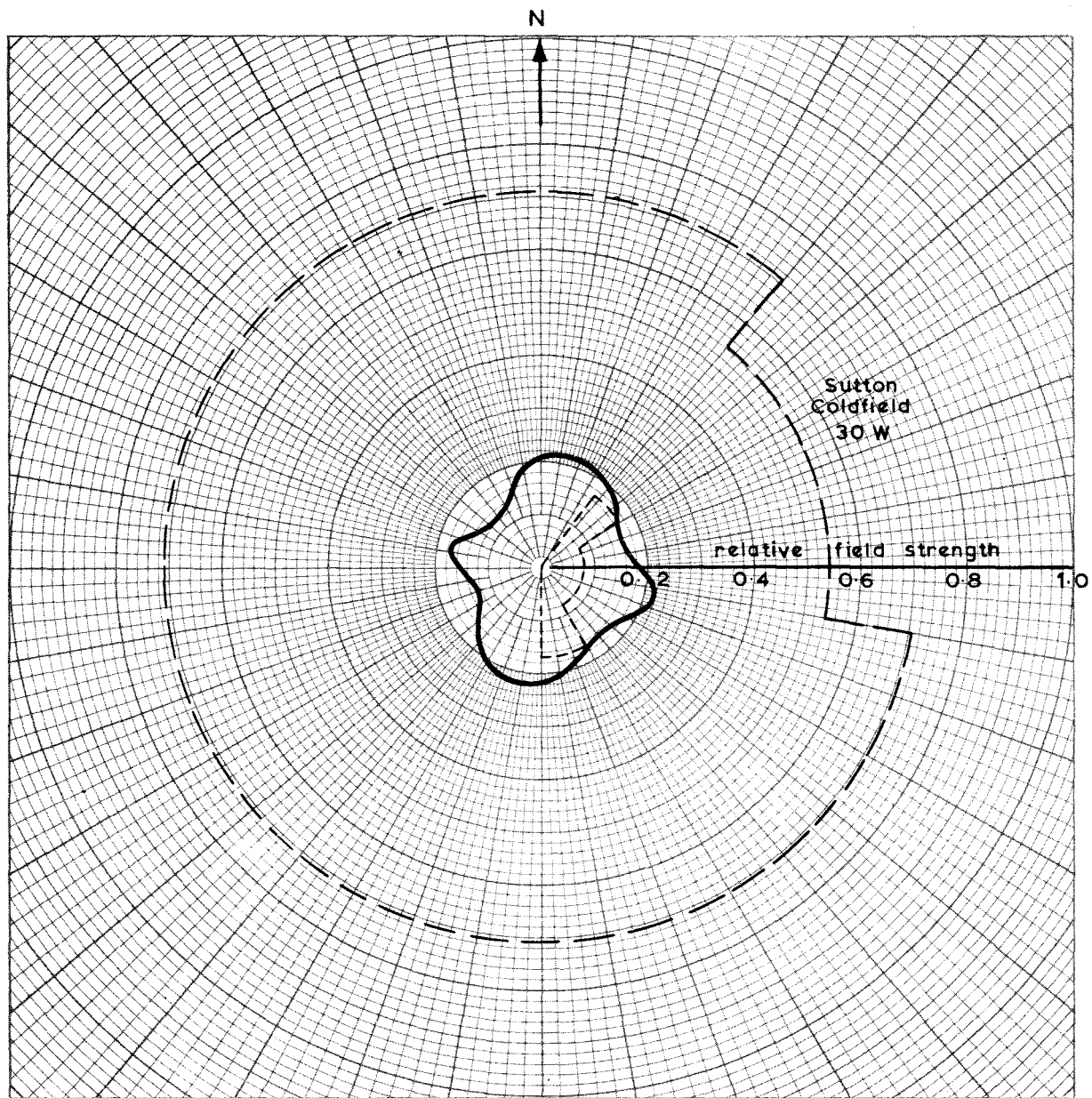
FEEDERS

TRANSMITTING: T3319

NOTES:

1. Detailed information is given on the following drawings held by BBC Transmitter Planning and Installation Department:

PID 9734.2.2A4	Arrangement of Aerials on 75 ft Tower
TP 8732.2.2X	Arrangement of Type 53 Shrouded Dipole
PID 9782.2.4A0	Band II Transmitting Dipole
PID 8732.2.4A2	Band I Receiving Yagi, Type 353P
PID 8732.2.5A2	Band II Receiving Yagi, Type 453P



**Fig. 3. Band II templet and horizontal radiation pattern**

— — — Maximum permissible E.R.P.

- - - - - Minimum desirable E.R.P.

Unit field corresponds to an E.R.P. of 100 W