

RESEARCH DEPARTMENT

**KILVEY HILL U.H.F. RELAY STATION: SUMMARY OF INSTALLATION**

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for Head of Research Department

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U.H.F. RELAY STATIONS : SUMMARY OF INSTALLATION

NAME: 106.1 KILVEY HILL

TYPE: 1

TRANSMISSIONS COMMENCED: (TRADE) 3.2.68 (SERVICE) 17.2.68

SITE DATA

LOCATION: SWANSEA  
GRID REFERENCE: SS 672940  
HEIGHT, a.o.d. : 193 m (632 ft)

SUPPORT MAST

TYPE: 46 m (150 ft) Tower  
OVERALL HEIGHT: 56 m (185 ft)

FREQUENCIES

BAND: IV  
CHANNELS: 23, 26 (BBC-2)  
29, 33 (BBC-1)

RECEPTION

PARENT: Wenvoe  
CHANNELS: 41, 44 (BBC-1)  
47, 51 (BBC-2)  
POLARIZATION: Horizontal  
AERIALS: 2 x 4λ Troughs  
AERIAL HEIGHTS: 23 m (75 ft) a.g.l.  
26 m (85 ft) a.g.l.

TRANSMITTERS

TYPE: Marconi Klystron 1 kW  
OPERATING POWER: (1) 0.199 kW  
(2) 0.795 kW

FEEDERS

TRANSMITTING: HF 1 5/8  
RECEIVING: HF 7/8

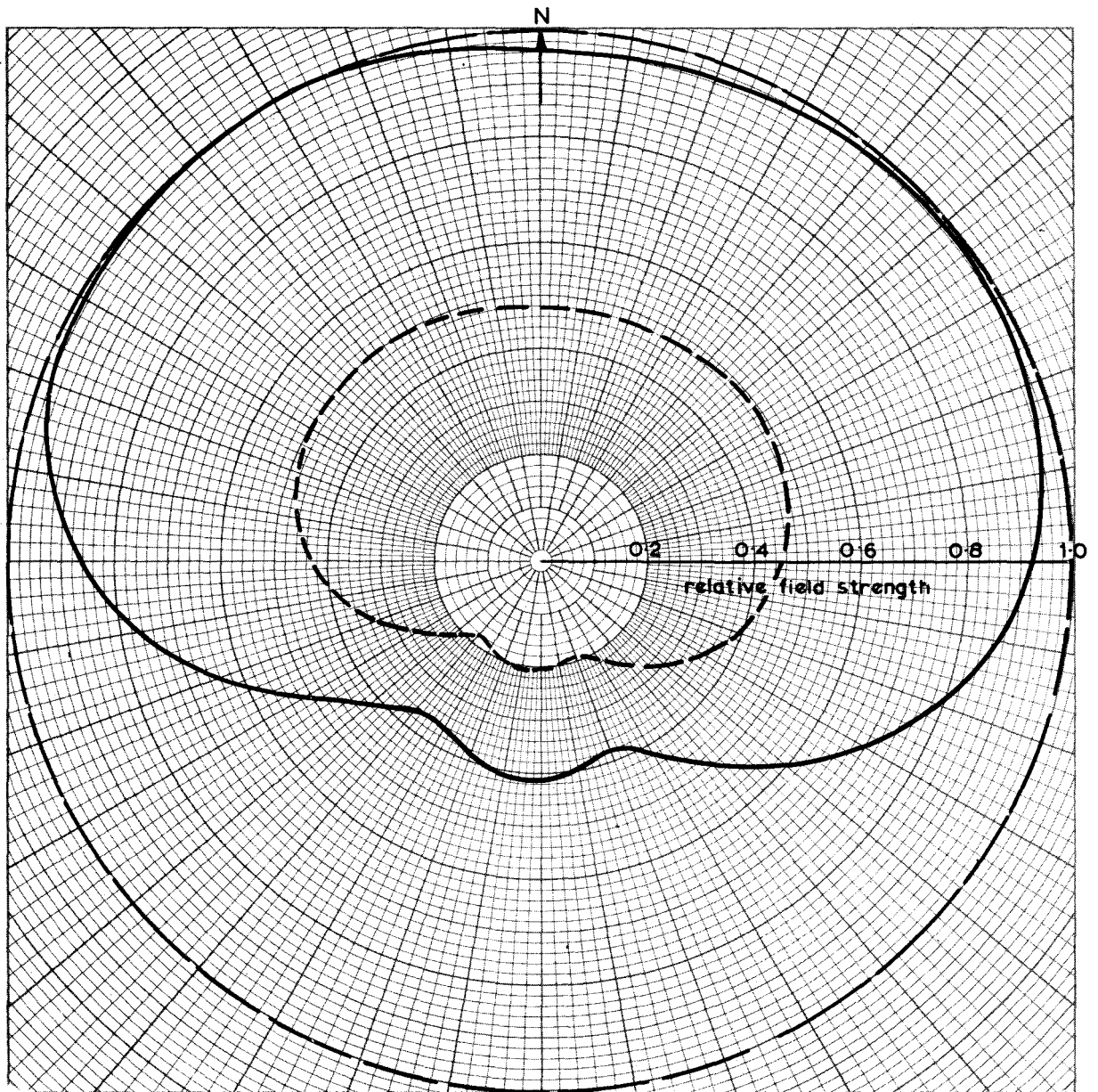
TRANSMITTING AERIAL

TYPE: BBC Standard Cardioid  
RADIATING LENGTH: 16λ  
H.R.P. : Fig.1  
V.R.P. : Fig.2  
MEAN HEIGHT: 50.8 m (166 ft 6 in)

RADIATION CHARACTERISTICS

POLARIZATION: Vertical  
MEAN E.R.P. : (1) 1.6 kW  
(2) 6.3 kW  
MAXIMUM E.R.P. : (1) 2.5 kW  
(2) 10 kW

NOTES: (1) Initial power  
(2) Power increase when Station No. 132, East Devon comes into operation.



### KILVEY HILL

Fig.1. Horizontal radiation pattern  
VERTICAL POLARIZATION

----- Transmitter power 0.199 kW

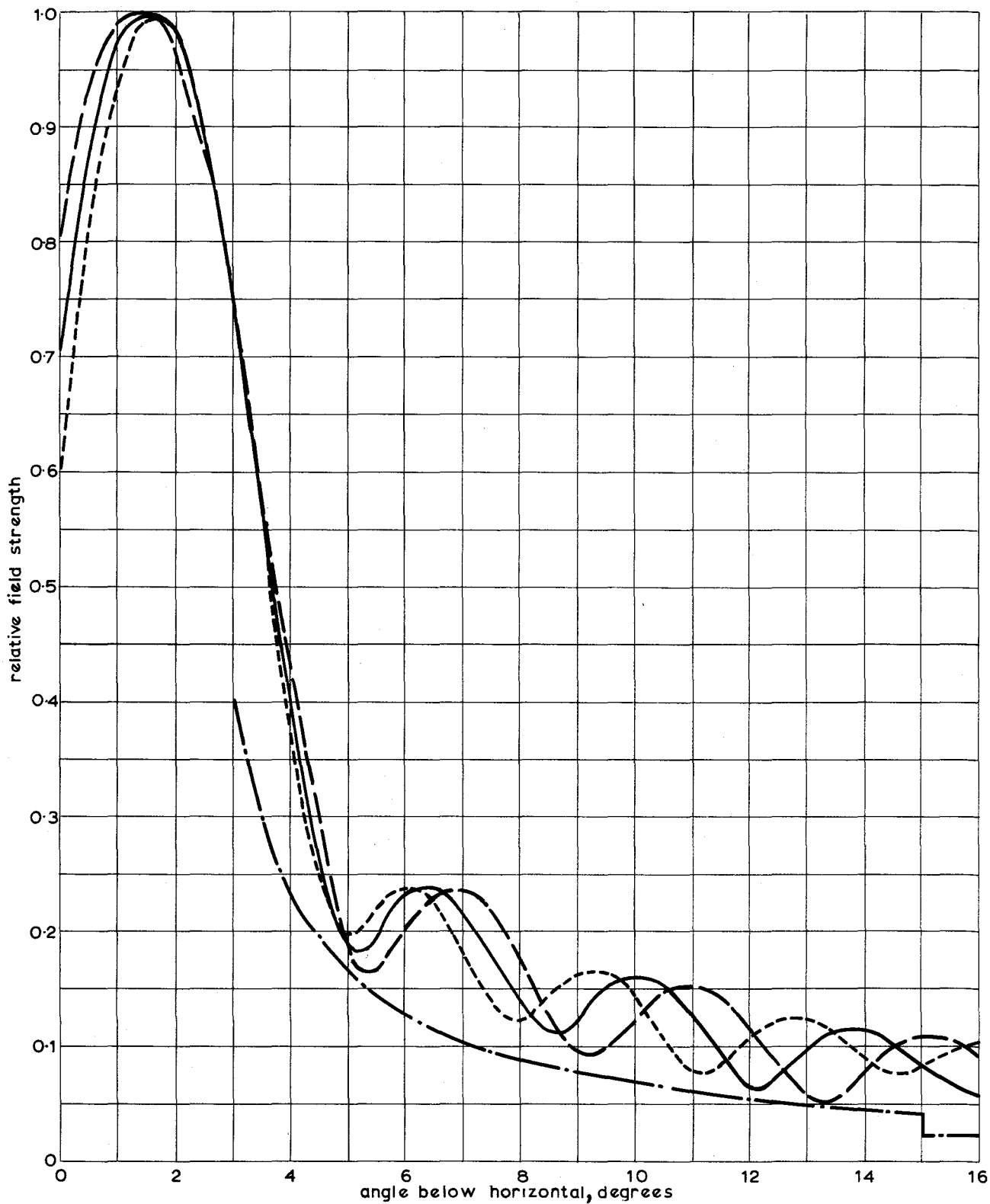
Mean E.R.P. 1.6 kW

———— Transmitter power 0.795 kW

Mean E.R.P. 6.3 kW

———— Stockholm E.R.P. limit

Unit field corresponds to an E.R.P. of 10kW



KILVEY HILL

Fig. 2. Vertical radiation pattern

- — — — — 475 MHz
- 528 MHz
- - - - - 580 MHz
- · — · — · — Specified minimum field