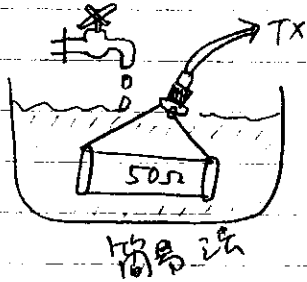


# 13 電波の出口から先...

⑤ 水は誘電率が大きい(約80) 補正板2枚 SWR補正が2進み 油(約5)なら可能とる。

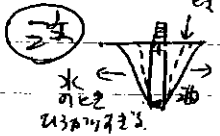
ただし → 中継機(表面が油?)の2枚は未だ使用

1. タミ-ロード... 高電力用の立派なのがない人(私みたい)には、水冷タミ-が美しい。



三共特殊無線の無誘導Rは

- 水冷おると 10倍はカタイ。
  - 20倍になると、水が突沸(爆発的に沸とうする)して、大変危険。
- 「お湯テッポウ」です。あつい。



2. アンテナ... それに耐えるアンテナが(全システムを含めて)必要であります。問題をおこしやすい箇所は

- ① バラン(放電や発熱による絶縁劣化)
- ② トラップ-セッ-無イパワー-入けるにせやばり Quad!
- ③ 切換えリレ-回路(バンド切換え) of CV-78
- ④ まれに同軸と同軸コネクター

• 同軸はまさか 5D2V さんが お使いではないと信じますが、(これは 2KW くらいで使うと、やわらかくなるのがわかりました。) 10D2V で HF なら 「定格 2KW」とのこと。PRTのAの使用なら、まずその3倍は OK でしょう。

• 同軸コネクターは、⑤は LC-1 タイプや 7/8 インチ同軸管用ものが入手できるはずもないのか。(同軸もうちには無いの?) カンバット、HN 型 (50Ω) にしておきましょうか。

⑤、8D 用なら 秋葉原・ラジオデパートの神保(じんぼう)で。 10D 用は、グリエットの社長さんにお願ひしよう。

## HF 平衡・不平衡変換器 (クリエットモザイク) CB-2F/X

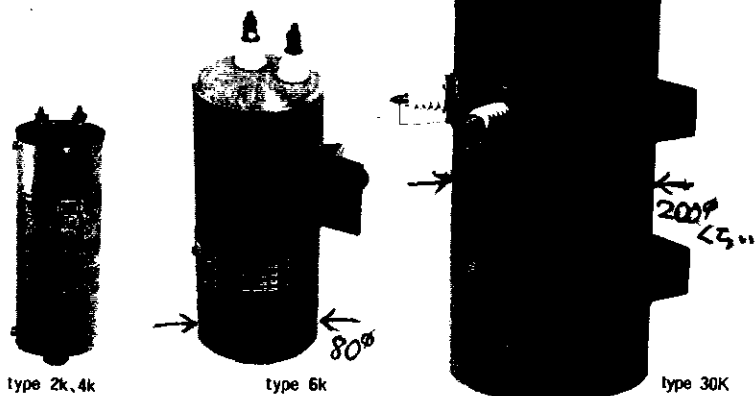
バランはアンテナと無線機の性能を最大限に引き出すためになくてはならないインターフェースです。バランは接地型系アンテナ以外の平衡型アンテナに同軸ケーブルを接ぐ場合の変換器です。CD CB-2F シリーズは高信頼につくられた低損失の高性能バランです。

これらのバランは高い平衡度と大きな尖頭電力においても最小の歪と相互変調特性となるようにフェライトコアを用いた広帯域トランスです。タイプ 6K 以上のバランにはコネクターが付属しています。

TYPE	2K	4K	6K	10K
Freq (MHz)	2-30	2-30	2-30	2-30
Ratio	1:1	1:1	1:1	1:1
PWR (kw)	0.5/2	1/4	2/6	3/10
Connector	M	M	HN	HN
Loss (dB)	0.3	0.3	0.2	0.2
Yen	¥5,000	¥9,800	¥29,800	¥78,000

★表示電力値は平均値/尖頭値(SWR1.5以下)

オイル封入型





# ALLGON BROADBAND HIGH POWER LOG. PERIODIC HF ANTENNA

TYPE

601

## PURPOSES

Allgon 601 is a steerable log — periodic antenna for broadcasting and communication over medium and long distances in the HF range, for transmitters, within the high and super high power range up to 500 kW carrier + 100% AM modulation over the frequency range 6 — 26 MHz. The boom is tiltable, allowing beam — shaping to optimize communication. The feed system is completely capsulated, making the antenna system insensitive of climatic conditions.

## ELECTRICAL DESCRIPTION

The log — periodic structure consists of 18 ea halfwave dipoles, carried by a rectangular aluminium boom. To obtain good radiation characteristics, low standing wave ratio and high power handling capability, the following measures have been taken:

1. A considerable boom length /39,6 m/ has been chosen.
2. The connections along the parallel line, the feed point and at the dipoles have been well dimensioned and shaped in a way to obtain a low VSWR rel. 50 ohm line.
3. The feed system is completely covered by the boom. The system is sealed and can be filled with dried air or gas.
4. Measures have been taken to facilitate inspection and replacement of the radiating elements, insulators or other parts if necessary.

## BEAM-SHAPING

The take — off angle at a given frequency can be varied changing the antenna inclination. The feature permits a controlled illumination of the wanted geographic area. If lobe splitting causes distortion or other disadvantages, changing of the antenna inclination can reduce side lobes in the H plane and give a concentrated pattern. Backwards leaning of the antenna structure gives a high take — off angle at low transmission over short distances. These features cannot be achieved with the antenna on free space height.

## POWER HANDLING CAPABILITY

The power is primarily limited by the coaxial feed cable inside the boom. The cable diameter in its turn is determined by the space inside the boom. For the chosen cable the VSWR of the antenna is another factor limiting the power. This antenna has initially a very low VSWR and enclosing of essential parts renders the system unsusceptible to influence of humidity, ice or impurities. The maximum nominal power is determined at the upper frequency limit.

## MECHANICAL DESCRIPTION

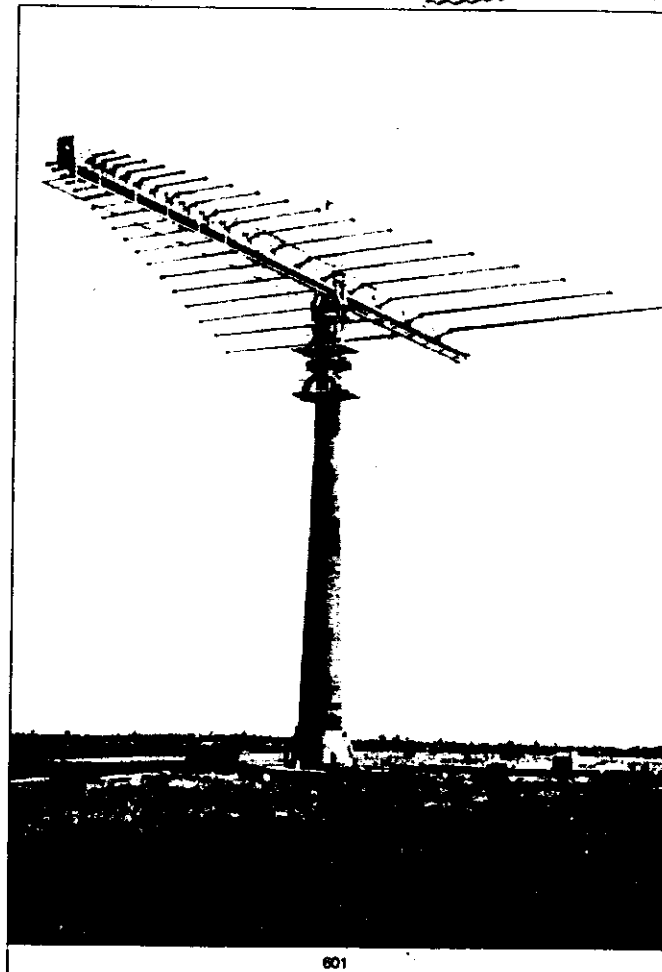
The radiator consists of open dipoles, connected to a parallel feed line inside the boom. The boom is a box — beam of rectangular cross section from angle sections and sheets of light metal alloy, quality SIS 144212-06 equiv. to B51SWP. The corrosion resistance of this alloy is good under all conditions. The vital parts of the parallel line and the feed points are totally enclosed in the boom and protected against water, salt, sand or other foreign matter.

Openings are provided to carry off condensed water or sand. The dipoles are made of light metal of the same quality as the boom. They are supported by conical insulators of polyesterbonded fiberglass and adjustable ceramic insulators. The aeroelastic vibration of the dipoles is absorbed by vibration dampers.

## INSTALLATION

Allgon 601 is designed for fast and safe installation. All main parts of the antenna are preassembled at factory. A thorough installation manual will be delivered together with the antenna. If delivered as a complete system with steel tower, Allgon will also furnish all necessary drawings for foundations. Alternatively, Allgon can supply drawings for a concrete tower. Obstruction lights can be supplied optionally.

このアンテナなら  
絶対耐える!  
スウェーデンの友人が 買え! とウルサイ



601

### ELECTRICAL

Frequency	5.9 — 26.1 MHz
Radiation characteristics	Directional
Polarization	Horizontal
Gain, free space	8 dBi
Gain, over ground with good conductivity	11 — 14 dBi
VSWR	1.4:1
Impedance	50 Ω (Optimal 50-60 Ω)
transformation line inside tower can be supplied)	
Power handling capability transmitting	Up to 500 kW carrier + 100% AM modulation ← ちうがく 一発

### MECHANICAL

Boom length	39.6 m
Span of longest dipole	26.5 m
Number of dipoles	18
Max. exposed wind area	44m <sup>2</sup>
Transport weight, antenna structure	9.3 t
Weight, largest transport unit	2.5 t
Dimensions, largest transport unit	14.0 x 2.3 x 1.3 m
Wind, without ice	46 m/s
Wind, with 5 cm radial ice	25 m/s
Max. antenna height at full elevation	35 m

### TOWER

Type	T 2111
Height	17.8 m
Base diameter	2.5 m
Transport weight	8.5 t
Dimensions, largest transport unit	17.8 x 2.7 x 2.7 m

### AZIMUTH DRIVE

Type	AR 2113
Angle speed, azimuth	180° / min.
Azimuth limits	None
Mains	3-phase, 380/220 V, 50 Hz
Power requirement	4 kW ← ちうがく
Wind area	2.8m <sup>2</sup>
Transport dimensions	1.9 x 1.9 m
Transport weight	2.2 t

### ELEVATION DRIVE

Type	AE 2108
Angle speed	20° / min.
Elevation limits	-35° / +25°
Mains	3-phase, 380/220 V, 50 Hz
Power requirements	2.5 kW ← ちうがく
Wind area	2.3m <sup>2</sup>
Transport dimensions	2.5 x 1.5 x 3.5 m
Transport weight	2.8 t

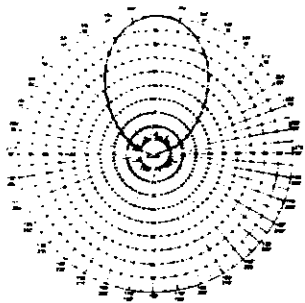
### CONTROL SYSTEM

Alternative Control Panel types for extended local control from transmitter site:		
Mode	Azimuth	Elevation
Manual only	ARS-O	AES-O
Manual plus 6 preset positions	ARS-6	AES-6
Manual plus 15 preset positions	ARS-12	not available

All data given with respect to constructional modifications

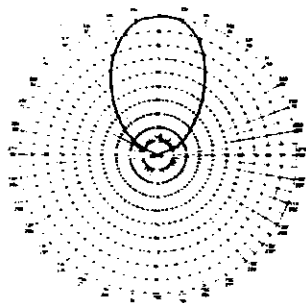
121

Horizontal (E) plane  
Linear voltage scale  
Frequency 6 MHz



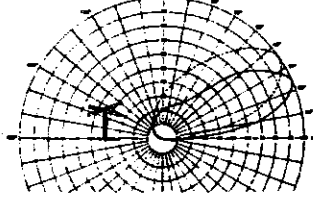
6MHz  
水平位置

Horizontal (E) plane  
Linear voltage scale  
Frequency 20 MHz



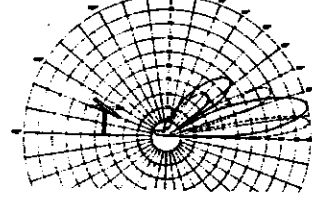
20MHz  
水平位置

Vertical (H) plane beam shape  
at different elevation angles of  
antenna structure  
Linear voltage scale  
Frequency 6 MHz



+25° Elevation angle  
+25° Elevation angle  
Centre of radiation

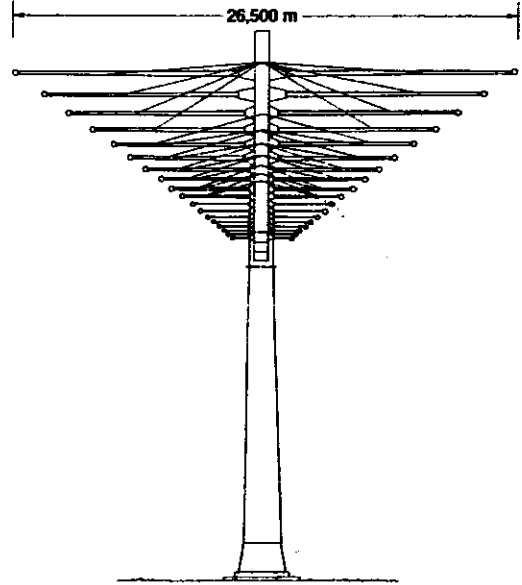
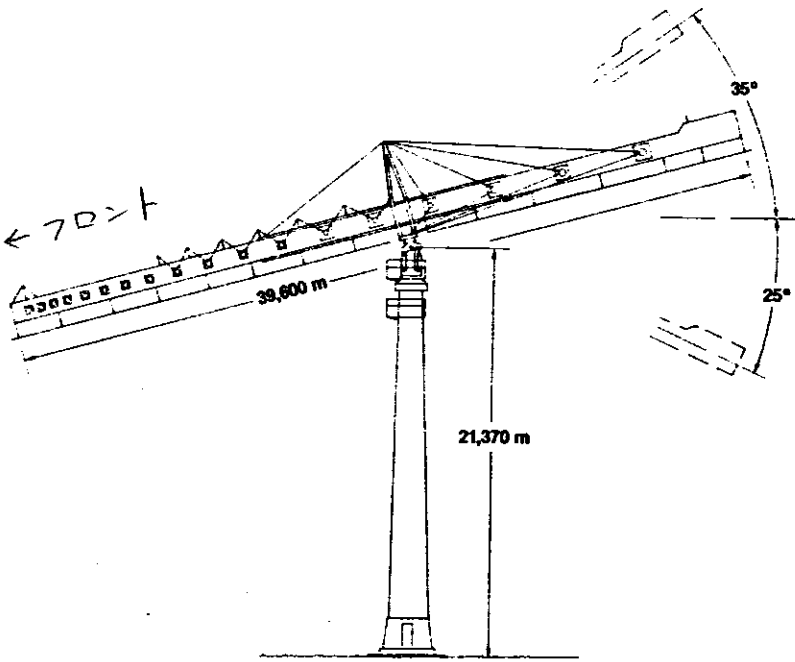
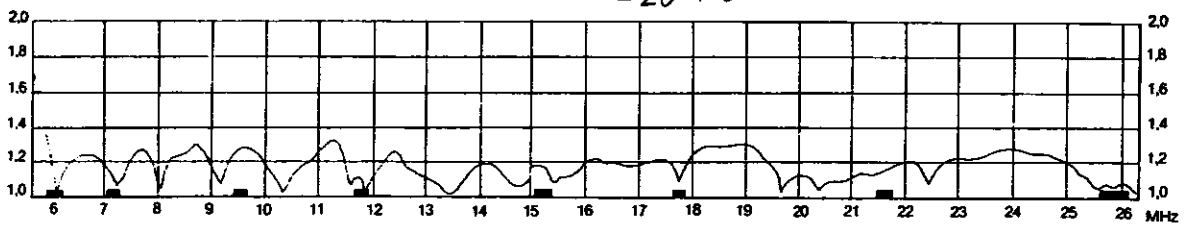
Vertical (H) plane beam shape  
at different elevation angles of  
antenna structure  
Linear voltage scale  
Frequency 21 MHz



-35° Elevation angle  
-35° Elevation angle  
Centre of radiation

--- (頭をたけると) --- (うなれると)  
+25°, 6MHz -35°, 21MHz  
- (頭をうなれると) --- (水平位置)  
-20°, 6MHz

VSWR curve  
heavy bottom  
dots indicating  
short - wave  
broadcast bands



お値段 およそ ¥300,000,000 くらい。(97-他込み)  
円高の今がお買ひ時かも。