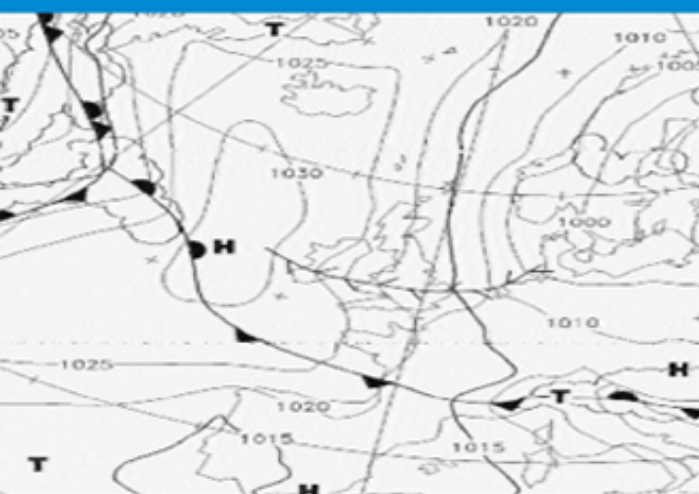
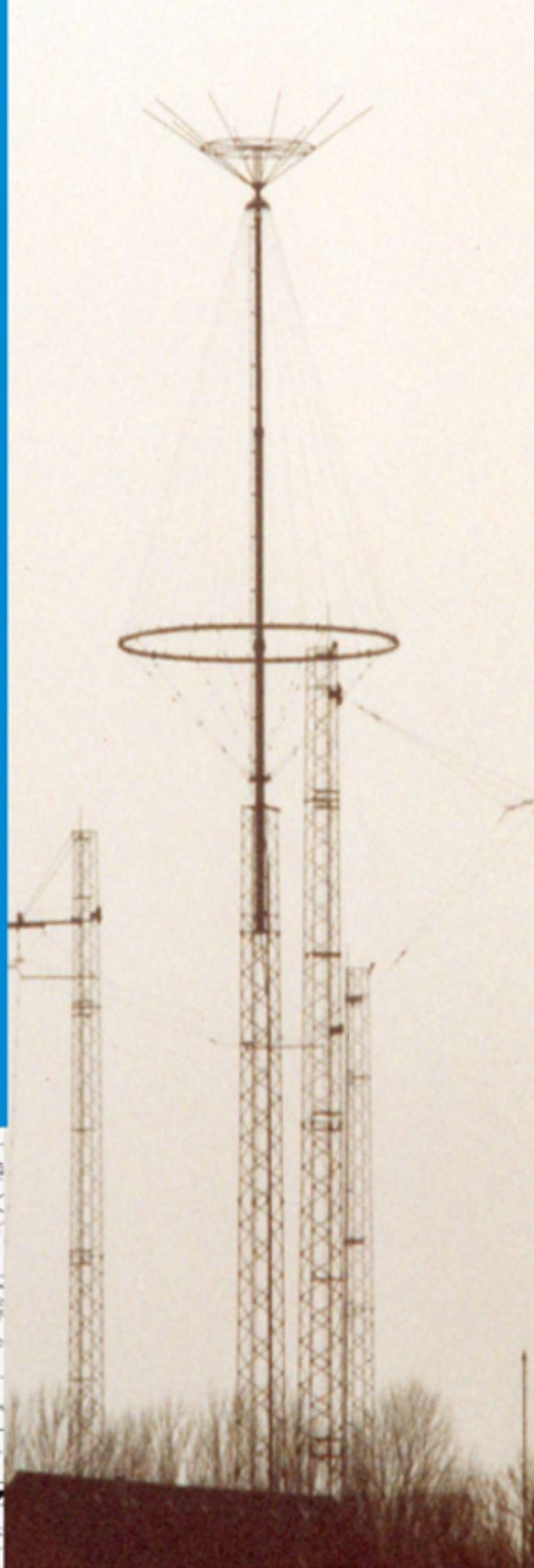
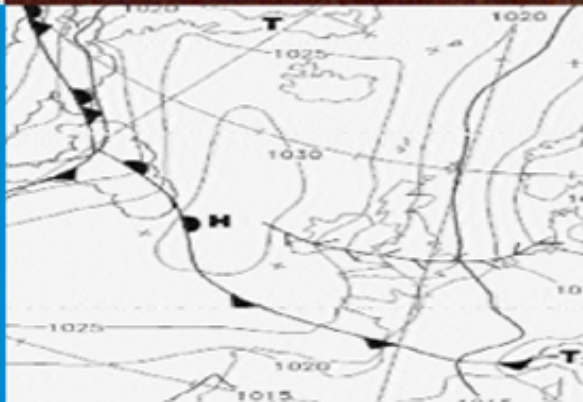


Roland Proesch

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Disclaimer:

The contents of this book have been compiled over many years. The research in this sensitive field is generally difficult as there are not many open sources to get information from. Although I have tried to verify the contents from different sources there might nevertheless be mistakes. Please do not hesitate to contact me if you discover any wrong description.

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Single Sideband full Carrier

Single Sideband reduced Carrier (SSB-RC)

Single Sideband suppressed Carrier (SSB-SC)

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Keying (SQPSK)
Compatible Differential Offset
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Frequency Hopping Spread Spectrum
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Theorem

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ITA 2 P

ITA 3

CCIR 476
ASCII / CCITT 5

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 Selective Repeat ARQ
 Polling
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STANAG 5066
X.25
RSX.25
Automatic Link Establishment (ALE)
Codan Automated Link Management (CALM)

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	Phase Constellation	
	Phase Plane	
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AFS Navy FSK		
ALE 3G		
ALE400		
ALG MIL Bell103 Modem		
ALIS		
ALIS 2		
ARD9800 OFDM 36ch Modem		
ARQ-E		
ARQ-E3		
ARQ-M2		
ARQ-M4		
ASCII		
AUM-13		
AUS MIL ISB Modem		
Baudot ITA No.2		
	Baudot Code	
	Murray Code	
	Western Union Code	
	ITA2 Code	

Baudot-ARQ System
Baudot F7B
Baudot Sync
BEE
BR 6028
BR 6029C Time Diversity Modem
CCIR 493 SELCALL
CHN ARQ Modem
CHN Broadcast Jammer
CHN MIL 4FSK
CHN MIL 8FSK 83.6 Bd
CHN MIL 8FSK 100 Bd
CHN MIL 8PSK Modem 1627 Bd
CHN MIL 8PSK Modem 2400 Bd
CHN MIL 64FSK
CHN MIL Datalink 30 tone
CHN MIL Datalink 39 tone
CHN MIL Hybrid Modem (4FSK-OFDM20)
CHN MIL Hybrid Modem (4FSK-8FSK-OFDM19)
CHN MIL Hybrid Modem (8FSK-PSK)
CHN 4+4 Modem
CHIP 64/128
CIS 11
CIS 12
CIS 12 ARQ
CIS 14
CIS 150 Bd SELCAL
CIS 16x75 Bd
CIS 36-50
CIS 405-3915
CIS 50-17 Baudot
CIS 50-50
CIS 81-29
CIS 81-81
CIS 200-1000
CIS 500 Bd FSK Burst Modem

CIS 640 Bd MSK Modem
CIS 1280 Bd MSK Modem
CIS 1280 Bd PSK Modem
CIS 2560 Bd MSK Modem
CIS 3000 Bd Modem
CIS 4FSK 96 Bd
CIS 4FSK 100 Bd
CIS 4FSK 150 Bd
CIS 7FSK 200 Bd
CIS 7FSK 300 Bd
CIS-ARQ
CIS AT-3004 Modem
CIS BPSK
CIS Hybrid Modem DBPSK and MFSK 16
CIS MFSK 1 + 12
CIS MFSK 1 + 10 + 1
CIS MFSK-11 125 Bd
CIS MFSK-12 10 Bd
CIS MFSK 12 + 1
CIS MFSK-14
CIS MFSK-17
CIS MFSK-20
CIS MFSK-36
CIS MFSK-36 Selective Calling
CIS MFSK-68
CIS OFDM 35/45/60/93/112/128 Channel
 35 tone OFDM
 45 tone OFDM variant 1
 45 tone OFDM variant 2
 45 tone OFDM variant 3
 45 tone OFDM variant 4
 60 tone OFDM variant 1
 60 tone OFDM variant 2
 93 tone OFDM
 112 tone OFDM
 128 tone OFDM

CIS QPSK 2 × 62.5 Bd
CIS VFT 3 Channels 100 Bd
CIS VFT 3 Channels 144 Bd
Clansman FSK Modem
Clover
Clover II
Clover 2000
Error-Correction Coding
Selective ARQ Repeat
Signal Format
Modulation Formats
Data Modes
Data Throughput (Bps)
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Coachwhip
CODAN
 CODAN 4 Channel mode
 CODAN 8 Channel Mode
 CODAN 12 Channel Mode
CODAN 3212 Mil Modem
CODAN Chirp mode
CODAN Selcall
Contestia
CROWD 36
CW-F1B
D AF VFT
DGPS
 TX numbers
 Message types
 Type 3 Message
 Type 5 Message
 Type 7 Message
 Type 9 Message
 Type 9-3 Message
 Type 9-1 Message
 Type 16 Message

DGPS Message Scheduling

Type 3 Message

Type 5 Message

Type 7 Message

Type 9 Message

Type 16 Message

DominoF

DominoEX

DPRK ARQ 600 Bd

DPRK ARQ 1200 Bd

DPRK FSK 600 FEC

DPRK BPSK Modem

DPRK 150 Bd BPSK

DPRK 300 Bd BPSK

DPRK 600 Bd BPSK

DPRK 1200 Bd BPSK

DRM

Stream Multiplexer

Fast Access Channel (FAC)

Service Description Channel (SDC)

Main Service Channel (MSC)

Transmission Frame

MPEG-4

Advanced Audio Encoding (AAC)

MPEG CELP

Harmonic Vector Excitation Coding

Multilevel Coding

DRM - WinDRM

ECHOTEL 1810 HF Modem

ECHOTEL 1820 HF Modem

Fax

FEC-A

F Navy FSK

G-TOR

GRC MIL FSK

GMDSS-DSC HF

Harris Analogue Voice Security (AVS)

Harris Autolink-I

HDSSTV

HELL

F-Hell, Press-Hell

Feld-Hell

GL-Hell

Hell-80

PC-Hell

PSK-Hell and FM-Hell

FSK-Hell

Duplo-Hell

Sequential Multi-Tone Hell

Concurrent Multi-Tone Hell

Slow-Feld

HFDVL73

HFDL

ICAO Selcal

IRN Navy 16 × 75 Bd

IRN Navy QPSK 207 Bd

IRN Navy Adaptive Modem V1

IRN Navy Adaptive Modem V2

ISR N Hybrid Modem

Italian MIL 1200 Bd FSK

Italian MIL 1200 Bd PSK

Japan 8-Tone ASK

Japan 16-tone PSK

Japan 1500 Bd QPSK

Japan 32-tone OFDM

Japan 32 Channel Modem

JT2

JT4 A-G

JT44

JT6M

JT65A/JT65B/JT65C

JT9 A-H

LINCOMPEX
LINEA Sitor
LINK 1
LINK 10
LINK 11 CLEW
LINK 11 SLEW
LINK 14
LINK 22
LINK Y
LINK Z
Mazielka
MD 522 NB
MD 522 WB
MD 522 DIV
MD 1061
MD 1142
MD 1280
MFSK-8
MFSK-16
MFSK AFS Navy Modem
MFSK Modem ALCATEL 801
 MFSK 4-TONE ARQ SYSTEM 150 to 1200
 Bd
 MFSK 8-TONE ARQ SYSTEM 16.7 & 100
 Bd
MFSK TADIRAN HF Modem
MFSK TE-204/USC-11 Modem
MIL STD 188-110A ser
MIL STD 188-110A Appendix A 16-Tone
MIL STD 188-110A Appendix B 39-Tone
MIL STD 188-110B Appendix C
MIL STD 188-110B Appendix F
MIL STD 188-110C Appendix D
MIL STD 188-141A
 Linking Protection
 AL-0

AL-1
AL-2
AL-3
AL-4 (classified application level)
Alternate Quick Call (AQC) ALE
MIL STD 188-141B
MIL STD 188-141B App. A
MIL STD 188-141B Appendix C
MIL STD 188-203-1A
MIL STD 188-203-3
MIL STD 188-212
MIL STD 188-342
MLA Navy Baudot
MT 63
Nokia Adaptive MSG Terminal M/90
NUM 13
Olivia
Olivia MFSK layer
Olivia Walsh functions FEC layer
PACTOR I
PACTOR II
PACTOR II-FEC
PACTOR III
PACTOR IV
PACTOR VI 2-Tone-Chirp
PACTOR IV Spread Modulation
Packet Radio
Panther-H FH Modem
PAX/PAX2
POL INTEL FSK
PSK 10
PSK 31
PSK 63 FEC
PSK 125 FEC
PSK 220 FEC
PSKAM 10/31/50

Q15x25
RFSM 2400/8000
 RFSM-2400 Modem
 RFSM-8000 Modem
Robust Packet Radio RPR
ROS
RS-ARQ
RS-ARQ II
RS GM2xxx Modem
RS GN2130 Modem
RTTYM
RUS Mil Voice Scrambler
Selenia Parallel Tone Modem
Siemens CHX-200 FSK Modem
SITOR A/B
 ARQ mode A
 FEC mode B
SKYFAX
SSTV
 SSTV VIS-Code
STANAG 4197
STANAG 4198
STANAG 4202
STANAG 4285
STANAG 4415
STANAG 4444
STANAG 4479
STANAG 4481 FSK
STANAG 4481 PSK
STANAG 4529
STANAG 4538
STANAG 4539
STANAG 4591
STANAG 5031
STANAG 5035
STANAG 5065

Systeme 3000 HF Modem
Tadiran AutoCall
Tadiran Data Mode
TFM3/5
Thales Voice Scrambler
Thor
Throb/Throb-X
TMS-430 Modem
VFT
WINMOR

7. OTHER ACTIVE SYSTEMS ON HF

AMSS
Beacons
 Maritime Mobile Service (MMS) Beacon
 Aeronautical Mobile Service (AMS) Beacon
 Amateur Radio Beacon
 Single Letter Beacons (SLB)
Analogue Voice Scrambler Sailor CRY-2001
Buoys
 Drifting buoys
 Fishing Buoys
 Sel-Call Buoys
Buoy Directional Waverider DWR-MkIII
Buoy Directional Waverider DWR-MkIV
Chirpsounder
 Chirpcomm
CODAR
Datatrak
Digisonde 4D
EFR
Eurofix
Frequency Hopper
Long Range Ocean Radar
LORAN-C
 LORAN data channel communication (LDC)

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- Messages
- MF RADAR
- NAVTEX
- NBTV
- OFDM NBTV
 - Limitations
 - The OFDM NBTV Modes
 - 48 × 48 Mode
 - 96 × 72 Mode
 - 96 × 72 Mode
- Digital NBTV
 - Modem
 - Codec
 - Interpolation
 - Compression
 - Error Correction
 - Data Transmission
 - Transmission Speed
- Hybrid FM NBTV
 - PN Sequence Sync
 - Operating Modes
 - Modulation
- Non Directional Beacons
- NDS200 DGPS
- Over The Horizon Radar
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 - Relocatable OTH Backscatter (ROTH-B)
 - Surface Wave OTH (OTH-SW)
 - JORN OTHR
- RFID
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- Russian BRAS-3 and RS-10 System
- Super Dual Auroral Radar Network

Time Signal Stations
DCF77
TDF
WERA

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TAF

METAR

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