

# Československý DX klub



## *18. výroční setkání*

*Spálené Poříčí 28.-30. března 2008*

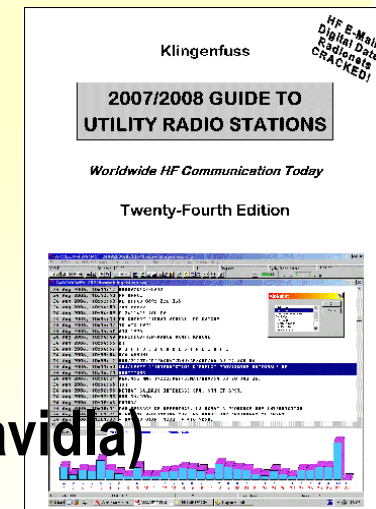
Petr Janásek

# Jak na digitální služby?

# Základní rozdělení stanic

## ■ Rozhlasové a TV stanice

- pravidelné a stálé
- dostatek informací
- provoz AM, FM,



- hůře dostupné informace
- mnoho různých provozů

# Utility - služby

## ■ Používané kmitočty

9 kHz – 30 MHz VLF, LF, HF  
30 MHz – 5 GHz VHF, UHF, SHF

- Podle kmitočtu se liší i druh provozu  
CW, fone, digitální provozy

## ■ Příslušnost

soukromé, veřejné, profi civilní, vojenské

- Sektor

agentury, firmy, hasiči, záchranky,  
letectví, lodní provoz, horská služba,  
sdílené kmitočty...

## ■ Umístění stanic

pozemní, lodní, letecké, družicové

# Ukázky zvuků digitálních provozů

■ VOLMET

■ Faksimile

■ CW

■ ACARS



■ HF DL



■ PACTOR

■ SSTV

■ ALE



■ SELCAL

■ APT



■ SITOP



■ NAVTEX



■ RTTY

# Přehled digimódů utilit

108.86 FEC-SYSTEM	ARQ-N	CMT	FAF SYSTEM	KRE-PSK	NATEL
1200-FSK	ARQ-S	COBRA	FARCOS SYSTEM	KY-99	NATO AERO TONE
1200-PSK STANAG 4529	ARS-GUARD	CODAN 16	FAX	LINK-1	NATO RATT
1600-PSK	ARTOR	CODAN SELCAL	FAX FRENCH	LINK-4	NATO STANAG-4285
1800-PSK	ASCII	CODAN 81	FAX 480	LINK-4A	NATO 100
2400-PSK	ASCII 10Bit ARQ SLOVAK	CODEC	FEBEKO	LINK-11	NATO 75
2-BPSK	ASCII 11Bit ARQ BULGAR	COGNITO	FEC-A	LINK-11B	NATO 16 Tone
2-DPSK	ASCII-CZECH	COMPULERT FSK-FM	FEC-S	LINK-11 Serial	NATO 39 Tone
36-50	ASCII-RUSSIAN	COQUELET 8 AUTO	FELD-HELL	LINK-14	NEC/D3
3-PSK	ASCII-SLOVAK	COQUELET 13	FHSS	LINK-16	NEXNET
4+4	ASTRO APCO-25	COQUELET 8	FLEET BROADCASTING	LINK-22	NEXTEL
4-DPSK	ATCS-SPEC200	COQUELET 8 FEC	FLEX	LOJACK	NMT 450
81-29	ATIS	COQUELET 80	FM-HELL	LSM-53	NMT 900
81-40.5	AUM 13	COQUELET 82	FMS-BOS	LSM-187	NOAA-GEOSAT
81-81	AUTOSPEC	CROWD 36 ISS	FNL BURST	MARK IV/V/VI	NOKIA SYSTEM
ACARS-HF	AUTOSPEC II	CV-786 FSK	FRENCH-300	MAZIELKA	NORTH KOREAN DIPLO
ACARS V/UHF	BAUDOT	CW MORSE	FSK-CIS	MELP	NUM 13
AEGIS	BAUDOT 1 Stopbit	CZECH-2400	FSK-HELL	METEOSAT	OTHR SYSTEM
ARCOTEL-1800Bd ALE	BAUDOT 1,5 Stopbit	DCF 77	FSK STANAG 5065	MDC	PACKET-HF
ARCOTEL-2400Bd ALE	BAUDOT 2 Stopbit	DDS-4800	FSK-411	MD-522 FSK	PACKET V/UHF
AES2	BAUDOT F7BBN	DGPS	FSK-600	MD-1061 16 Tonos	PACT
AES4	BR 6028	DGPS/DATATRAK	GAF 144 3Ch VFT	MD-1142	PACTOR-ARQ
ALADIN R&S	BUL-39 Tone	DCS	GERMAN MOI - ARQ-E	MD-1239 16 Tonos	PACTOR-FEC
ALF	BULG-ALE	DMB	GE MARK-V	MD-1268 16 Tonos	PACTOR-GLOBE WIRELESS
ALGERIAN-4Tone	BULG-107 Pseudo	DTMF	GE-STAR	MDT-4800	PACTOR-I 1
ALGERIAN-8Tone	BULG-ASCII	DUP-ARQ	GL-HELL	MDT-19200	PACTOR-I 2
ALIS	BULG-DIPLO	DUP-ARQ II	GMDSS/DSC HF	MFSK-8	PACTOR-I 3
ALIS 8Bit	CABMASTER	DUP-FEC 2	GMDSS/DSC V/UHF	MFSK-16	PACTOR-I 4
ALIS-2	CCIR-7	DUPLO-HELL	GN-150 FSK 3Ch	MIL STD-110-342	PACTOR-I 5
ANNEX 10	CCIR-I	EAS	GNYSYSTEM	MIL STD-110-342 16CH VFT	PACTOR-I 6
APOC	CCITT	ECHOTEL-EAS	GOLAY	MIL STD-188-110A	PACTOR-I 7
APOR-VFT	CDPD	EEA/CCIR 2	G-TOR	MIL STD-188-110B	PACTOR II
APRS	CHINESE 32Tone	EEA/CCIR 7	HARRIS-ALE	MIL STD-188-141A	PACTOR II FEC
ARAMIS R&S	CHINESE MIL- 18Tone	EFJ-LTR	HARRIS 39	MIL STD-188-181	PACTOR III
ARES	CHINESE MIL- 39Tone	EIA	HAVE QUICKI/II	MIL STD-188-182	PACTOR III / 16Tonos
ARCOTEL-ALE	CHINESE 2400	ELECTROCOM-INVADR	HC-ARQ	MIL STD-188-183	PAGER
ARQ6-70	CIS NAVY	EMWIN	HCLOS	MIL STD-188-196	PAKNET
ARQ6-90	CIS-11	EOTD	HELL SIEMENS	MIL STD-188-197	PAKTEL-CP100
ARQ6-98	CIS-14	EPIRB	HELLSCHREIBER	MIL STD-188-198	PANTHER-H
ARQ-E	CIS-27	EPLRS	HFSK	MIL STD-188-220B	PCM 30/E1
ARQ-E3	CIS-36	ERMES	HNG-FEC	MIL STD-2301	PCS
ARQ-M2-242	CIS-40.5	ET-1	HYPERFIX	MIL STD-2500	PCW
ARQ-M2-342	CIS-73	ET-2	IMBE	MMP-4800	PICCOLO MK12
ARQ-M4-242	CIS-75	EURO	INFLEXON	MOBITEX	PICCOLO MK6
ARQ-M4-342	CIS-96	F7B 195,3 4Tone	INFOCALL	MODACOM	PICCOLO VFT 2x20
PSK-MIL STANAG 4289	CIS-100	CIS- 3x100 VFT	IRA-ARQ	MODAT	PICCOTOR
PSK-MIL STANAG 4415	CIS-150	CIS- 3x144 VFT	ISR-PSK	MOI-ROMA	PICTOR
PSK-MIL STANAG 4444	CIS-200	CIS- 3x BAUDOT 50	ITALIAN-MIL	MOI-VFT	POL-ARQ
PSK-MIL STANAG 4481	CIS-300,5	CLOVER		MPT 1327/1343	POL-MIL
PSK-MIL STANAG 5006	CIS-1200			MPT 1317-UK	
	CIS-1280				

# Přehled digiprovozů služeb - pokračování

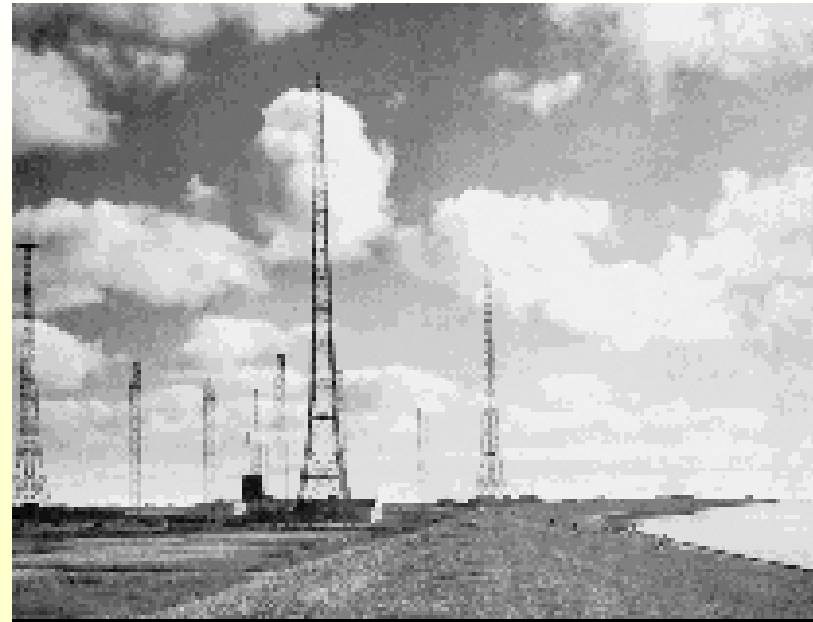
6

PSK-MIL STANAG 4538	SPEECH	RE-PSK	FAF SYSTEM	CMT POR-VFT
PSK-MIL STANAG 4539	SPREAD-11	MOI-ROMA	FARCOS SYSTEM	PRESS-FAX
PSK-QAM STANAG 5066	SPREAD-21	MOI-VFT	FAX	PSK-HELL
PSK-08	SPREAD-51	MPT 1327/1343	FAX FRENCH	PSK-105-HELL
PSK-63F	STATUSBOX	MPT 1317-UK	FAX 480	PSK-245-HELL
PSK-125F	SSR	MSS	FEBEKO	PSK-MIL STANAG 4231
PSK-31 BPSK	SSTV Automatic	MS5-FIRE	FEC-A	PSK-MIL STANAG 4285
PSK-31 QPSK	SSTV AVT B&W	MSF	FEC-S	PSK-MIL STANAG 4285 ARQ
QAM	SSTV AVT 24	MT-HELL	FELD-HELL	PSK-MIL STANAG 4285 FECKG-87
Q15x25	SSTV AVT 90	MTTY	FHSS	KG-94A
RAC-ARQ	SSTV AVT 94	MT-4	FLEET BROADCASTING	KIV-19
RADIONICS Safecom	SSTV AVT 188	MT-63	FLEX	KL-43
RAM Mobile Data	SSTV HQ1	MULCAST - VFT	FM-HELL	MSS
RAMP	SSTV HQ2	PICTOR	FMS-BOS	MS5-FIRE
RBDS	SSTV Martin 1&3	POL-ARQ	FNL BURST	MSF
RDS	SSTV Martin 2&4	POL-MIL	FRENCH-300	MT-HELL
RD-LAP	SSTV P3	POR-VFT	FSK-CIS	MTTY
RECEPTOR	SSTV P5	PRESS-FAX	FSK-HELL	MT-4
REFLEX	SSTV P7	PSK-HELL	FSK STANAG 5065	MT-63
ROU-MOI FEC	SSTV PD50	PSK-105-HELL	FSK-411	MULCAST - VFT TRACKER
ROCKWELL-4Tone	SSTV PD90	PSK-245-HELL	FSK-600	TT2300B
RS 8Tone ARQ	SSTV PD120	PSK-MIL STANAG 4231	GAF 144 3Ch VFT	TURKISH-25 Tone
RS-ALIS v1	SSTV PD160	PSK-MIL STANAG 4285	GERMAN MOI - ARQ-E	TWINPLEX
RS-ALIS v2	SSTV PD180	PSK-MIL STANAG 4285 ARQ	GE MARK-V	TWINPLEX-ARQ
RS-2400 PSK	SSTV PD240	PSK-MIL STANAG 4285 FEC	GE-STAR	TWINPLEX BAUDOT
RUM-FEC	SSTV PD290	ITALIAN-MIL	GL-HELL	UHFLOS-HDR
RUS-144 FEC	SSTV Robot 24s	JAPANESE-MIL 8/16	GMDSS/DSC HF	UK-ARMY
RUS DIPLO-2Tone	SSTV Robot 36s	JT-44	GMDSS/DSC V/UHF	UK-MIL 8Ch VFT
RUS DIPLO-6Tone	SSTV Robot 8s	KFF-58	GN-150 FSK 3Ch	UK-NAVY
RUS DIPLO-F1A Tone	SSTV SC-1 16&32s	KG-40A	GNV SYSTEM	USC-11
RUS -INTEL VFT	SSTV SC-1 24&48s	KG-84A NATO	GOLAY	US INTEL
RUS- CHIRP	SSTV SC-1 48&96s	KG-84C NATO	G-TOR	US INTEL FEC
RUS PARALLEL-TONE	SSTV SC-1 8s	KG-87	HARRIS-ALE	US MIL 4Frec.
SATCOM-MDR	SSTV SC-2 120s	KG-94A	HARRIS 39	USAF Pseudo
SATURN	SSTV SC-2 180s	KIV-19	HAVE QUICKI/II	VDEW
SAT-A-TELEX	SSTV SC-2 30&60s	KL-43	HC-ARQ	WEATHER FAX
SAT-C-DATA	SSTV Scottie 2&4	IMBE	HCLOS	WTK-170
SCADA	SUI-FEC	INFLEXON	HELL SIEMENS	YUG DIPLO 16
SLOW-FELD HELL	SWED-ARQ	INFOCALL	HELLSCHREIBER	YUG 20 Tone
SMS	SWED-DIPLO 2400	IRA-ARQ	HFSK	YUG-MIL FEC
SINOP	SWEDISH MBS	ISR-PSK	HNG-FEC	ZETRON 6/26
SITOR-A	TADIL-C	CLOVER 400	HYPERFIX	ZVEI-I
SITOR-B	TADIL-J	CLOVER 500	JAPANESE-MIL 8/16	ZVEI-II
SKYFAX	TADIRAN HF-DATA Modem	CLOVER MARINE	JT-44	ZVEI-VDEW
SKYHOPPER	TE-204 FSK	CLOVER 2000	KFF-58	
SOVIET 84	THOMSON 8-FSK	CLOVER II	KG-40A	
SP-14	THROB		KG-84A NATO	
SKYPER	TMS 430		KG-84C NATO	
SMT	TPLEX			

CW

■ KV

Roma Radio IAR25  
521,5 kHz



CQ CQ CQ DE IAR IAR IAR TFC LIST LEONID KHOTKIN LEONID KHOTKIN A3GK7 A3GK7 CQTM CQTM  
C6NE7 C6NE7 C6QR6 CE5QR6 C6RZ8 C6RZ8 C6S08 C6S08 EBWH EBWH ELDW3 ELDW3 ELFR2 ELH IR2  
ELRI7 ELRI7 ELXGE ELXGE ELXG6 ELXG6 ENJP ENJP EQGD EQGD EQWT EQWT HP7270 HP7270 HSAP2  
HSAP2 H9IF H9IF J8FD8 J8FD8 LANG5 LANG5 LZDV LZDV LZGL LZGL LZHK LZHK OYAY2 OYAY2 P3FH9  
P3FH9 P3OL3 PSE E E OL3 SSBG SSBG SVIK SVIK SWXR SWXR SWYX SWYV SXPT SXPT SZQM SZQM  
TCAT6 TCAT6 TCCC4 TCCC4 TCCJ5 TCCJ5 TCDD5 TCDD5 TCDJ TCDJ TCFQ TCFQ TCFT TCF TCFW TCFW  
TCHA TCHA TCLM TCLM TCNE TCNE TCSY TCSY TCTE TCTE TCTY TCTY TCUI TCUI TCUQ TCUQ TCUS  
TCUS TCUY TCUY TCWX TCWX TSME TSME TSMS TSMS TSMU TSMU UBWP UBWP UIXW UIXW URHP  
URHP U3FC2 U3FC2 U3MP4 U MP4 VRWI2 VRWI2 VSNA4 VSNA4 V2OV V2OV V3FC2 V3FC2 V3FC2 V3FC2  
V3MP4 V3MP4 V7DX4 V7DX4 XU7MH XU7MH <VE> E ILE2 3ELE2 3FDI4 3FDI4 3F 3FOT9  
3FOT9 4LAH 4LAH 7T TPA 9A2122 9A212 9A8394 9A83 SSE EI EI EI E 6 9HE 6 9HII4 9HII4 9HIU7 9HIU7  
9HKH5 9HKH5 9HXHZ 9HXHZ 9HXHZ 9HXHZ 9HYZ6 9HYZ6 97KK7 97KK7 IBBF IBBF IBCR IBCR IBOA IBOA  
IBVG IBVG ICGD ICGD ICHR ICHR





# Faksimile na KV



COMM32 - registered to Petr Janasek

File Mode FAX Help

Current configuration file: Standard

FAX

Time: 29-III 08:18 UTC

Audio level

HF-Fax IOC: 576 LPM: 120 Zoom: 1:2

Spectrum

Black White

FAX-RX Window

gme\_1kb\_na\_e\_072\_0c/PFOK89

BODENDRUCK GME (HPA)

VI: DI 01-04-03 00UTC

(PROG VOM 29 03 03 00 UTC I 77H)

(c)2003 DEUTSCHER WETTERDIENST

Start JVCOMM32 - register... 9:19 OK1XPJ

# Noviny faxem

COMM32 - registered to Petr Janasek

File Mode FAX Help

Current configuration file: Standard

FAX

Time: 09-II 22:31 UTC

Audio level

HF-Fax IOC: 576 LPM: 60 Zoom: 1:2

Black White

FAX-RX Window

NEWS 2004年 2月10日 (火曜日) 朝刊 (2) KYODO NEWS 第23520号 2004年 2月10日 (火曜日) 朝刊 (1)

### 共同ニユーリス

## 外資株主、6000億円の市場益

### 破たん 処理損失 国民負担は巨額 批判再燃

破たんした旧日本経済信用銀行を国が取り戻す新生銀行として生かされた株主の外資系投資組合が、買収から四年で保有株式の市場価値が約六割に落ちたことを受け、約六千億円の上場益を得ることを、六日開きした。新生銀行の東京証券取引所上場を機として、株式の売り出し競争が二株主十五日に決まってきた。

旧銀行の破たん処理を招かずに、一時国営に持ちこたれた約八千億円もの公的資金が投入されたことを受け、約二〇〇〇年三月に米投資会社リッブルワッダー・ホールディングスを中心とする投資組合に売却。新生銀行として再スタートし、法人融資中心から転換するなどの大胆な経営手法で再建を進め、上場にこぎつけた。

投資組合は新生銀行の発行済み普通株式総数約十三億五千八百万株の約四分の一を有するが、上場時に行われるべきは約四億七千万株を売却する。約二十五日に再建投資組合の保有株式は約七千五百億円に落ち、上場時の売り出し競争を際立って、約二億円の売却益を手懐けた。

投資組合が買収に際したのは、国が持株株式の買い取りに必要本としてきた日全保政策の大きななる海外派達の回交が、国会審議中にも派達は進んでおり、実のところで本保派は非難を浴びた。

イラクの派手な派手派は出るなど、本保が起れば、首相は衆議でも承認されており、小泉首相はイラク部隊をマフドゥーの上自衛隊本部の管理を維持することを本格化するなども、総隊の安全確保に全力を挙げる方針だ。

首相は九日、国会内で記者団に「自衛隊の活動がイラクの人々から評価される」と述べた。

### イラク派遣を国会承認

### 憲法議論 首相、自衛隊の安全に全力

イラク復興支援特別措置法に基づき自衛隊派遣の承認案件は、九日夜の参院本会議で自民、公明両党などの賛成多数で可決承認された。野党の民主進などは反対した。一月三十一日には衆議でも承認されており、小泉首相はイラク部隊をマフドゥーの上自衛隊本部の管理を維持することを本格化するなども、総隊の安全確保に全力を挙げる方針だ。

### 野家あすから牛井中止

### 米産牛の在庫切れで

牛井チエーン最大手の吉野家チェーンは、九日、牛井販売を今月十一日から中止する、と発表した。各店舗で牛肉の在庫がなくなり、販売が一部店舗で中止された。

### 心臓発作で倒れる

### 県警が注意

「運送中」の圧縮

running

Start Ovládání záznamu JVCOMM32 - register... 23:31

# Aktivní stanice Meteofax

Ankara Meteo TUR 3377.4,6790  
Arkhangelsk Meteo RUS 3657,7762,5347  
Athens AIR GRC 4481,8105  
Auckland Meteo NZL 5807.1,9458.6,135501,16340.1  
Bangkok Meteo THA 7395,17520  
Beijing Meteo  
CHN5526.4,8121.9,10117.8,14367,14547.16025,18237  
Capa Naval AFS 4014,7508,13538,18238  
Casey Meteo ATA 7470,11455  
CCG Iqaluit CAN 3253,7710  
CCG Resolute CAN 3253,7710  
Centro Met Ed Frei ATA 5302.5,11662.5,15470  
Centro Met Marambi ATA 2401,4807,9951  
CF Halifax CAN 122.5,4271,6496.4,10536,13510  
Charlottetown CGR CAN 4616,6915.1  
Chuo Fisheries J 16907.5  
CNA Tai-pei TAI 9430,13766,14685,15878,19680,22850  
Copenhagen Meteo DNK 5850.2,9360,13855,17510  
Darwin Meteo AUS 7535  
Delhi Meteo IND 4995.5,7405,10107,14842  
Hamburg Meteo D 3855,7880,13882.5  
Honolulu Meteo HWA 9882.5,11090,16135,23331.5  
Inuvik CAN 8456  
Irkutsk Meteo RUS 5280,7702,10207  
KCNA Pyongyang KRE 11475.7,13580  
Khabarovsk Meteo RUS 3250  
Khabarovsk Meteo RUS 3250

Kiyev Meteo UKR 3360,5285,6720,6950,8183,13900.5  
Kyodo Singapore SNG 16035,17430  
Maritim Air group CAN 4618,6917,14626  
Melbourne Meteo AUS 2628,5100,11030,13920,20469  
Moscow Meteo RUS 4318,5108,6890,7670,11611,13886  
Murmansk Meteo RUS 8444  
Nairobi Meteo KEN 9045,17445.5  
NMEFC Beijing CHN 8461.9,12831.9,16903.9  
Pevek RUS 148  
Puerto Belgrano ARG 5705,12764  
Rio de Janeiro B 12660,16980  
RN London G 2618.5,4610,8040,11086.5  
Seoul Meteo KOR 5385,5857.5,7433.5,9165,13570  
Shanghai Meteo CHN 3241,5100,7420,11420,18940  
Tai-pei Meteo TAI 4616,5250,8140,13900,18560  
Tashkent Meteo UZB  
3690,4365,5869.5,5890,7570,9340,14982.5  
Tbilisi Meteo GEO 3745,7495,14990  
Tokyo Meteo 2 J 3622.5,7305,9970,13597,18220,23522.9  
Tokyo Radio J 4316,8467.5,12745.5,16971,17069.5  
Tokyo Radio J 22517.5,22542,22567  
USCG Boston USA 4235,6340.5,9119,12750  
USCG Kodiak ALS 2052,4298,8459,12412.5  
USCG New Orleans USA 4317,8503.9,12789.9  
USCG San Francisco USA  
4346,8682,12730,17151.2,22527  
Valparaiso Radio CHL 4228,8677.2,17144.4  
VNA Vietnam VTN 16226

# Počasí na KV

The screenshot displays the Zorns Lemma 10.1 software interface. The main window shows a map of Europe with a weather report for Guernsey Airport. A 'Signalanalyse...' window is open in the top right, showing a spectrum plot. The weather report window provides the following data:

Wettermeldung [AAXX] einer Bodenstation [FM-31] aus :  
GUERNSEY AIRPORT EUROPE ELAND UNITED KINGDOM OF GREAT BRITAIN AND NORT vom 15. 12:00 UTC

Himmel	6/8 bewölkt	Wolkenhöhe	ca. 300 -600 m	Wind	Stärke 2 aus Nord
Sichtweite	15 km	Luftdruck	1028.3 hPa	Wolken	Stratocumulus
Niederschlag	0,0 mm	Luft/Taup.	+09°C / +05.8°C	Wetter	leichte Wolkenbildung

The signal analysis window shows a spectrum plot with a peak at approximately 1500 Hz. The x-axis is labeled with 1000, 1500, 2000, and 2500. The plot includes checkboxes for 'Auto.Pol.', 'Spektrum', and 'rev. Pol.', with 'Spektrum' and 'rev. Pol.' checked.

# Pomalá amatérská televize - SSTV

RadioCom 4.0 (AOR-5000)

14230000

10 Hz

0.5 KHz

USB CW RTTY  
LSB CW FAX  
AMII ASD ASL  
AM ASF ASU  
DI Fi FM WFM

Neue Station Einstellung übernehmen Ändern Löschen Speichern

Frequen...	Bere...	Modulation	ZF	Dekoder	Modus	Baud	Mark	Shift	Polarität	Stopbits	Bezeichnung
13920.000	0.000	USB	0.5 KHz	FAX	576	0	1900	800		0.0	Meteo Canberra
13927.600	0.000	USB	0.5 KHz	RTTY	Baudot	50	1275	425		1.5	BPA Bonn/Frankfurt
13947.000	0.000	USB	0.5 KHz	FAX	576	0	1900	800		0.0	Meteo Tashkent
14230.000	0.000	USB	0.5 KHz	SSTV	Martin1	0	0	0		0.0	SSTV 20 Meter
14340.000	0.000	USB	0.5 KHz	RTTY	Baudot	50	1275	425		1.5	Meteo Beijing
14356.000	0.000	USB	0.5 KHz	RTTY	Baudot	75	1275	434		1.5	Meteo Bracknell

Audio Fax Fax Sstv Sstv Rtty Rtty Cw Cw DCF77 Info



**Dekoder**

F1 Empfang F4 AutoSync  
F5 AVIS F8 Filter  
ManuSync

**Bild**

Laden Speichern  
Drucken Automatik  
Schräglage

**SSTV-Betriebsart**

Martin 1 Scottie 1  
SC2 180 Robot 72

**Empfänger**

80 20 10 70 cm M+  
40 15 2 23 cm M-

**Filter**

LO Noise MED Noise HI Noise manuell  
200 untere Frq  
5000 obere Frq  
6 Ordnung

# Letecký provoz

Radiová činnost:

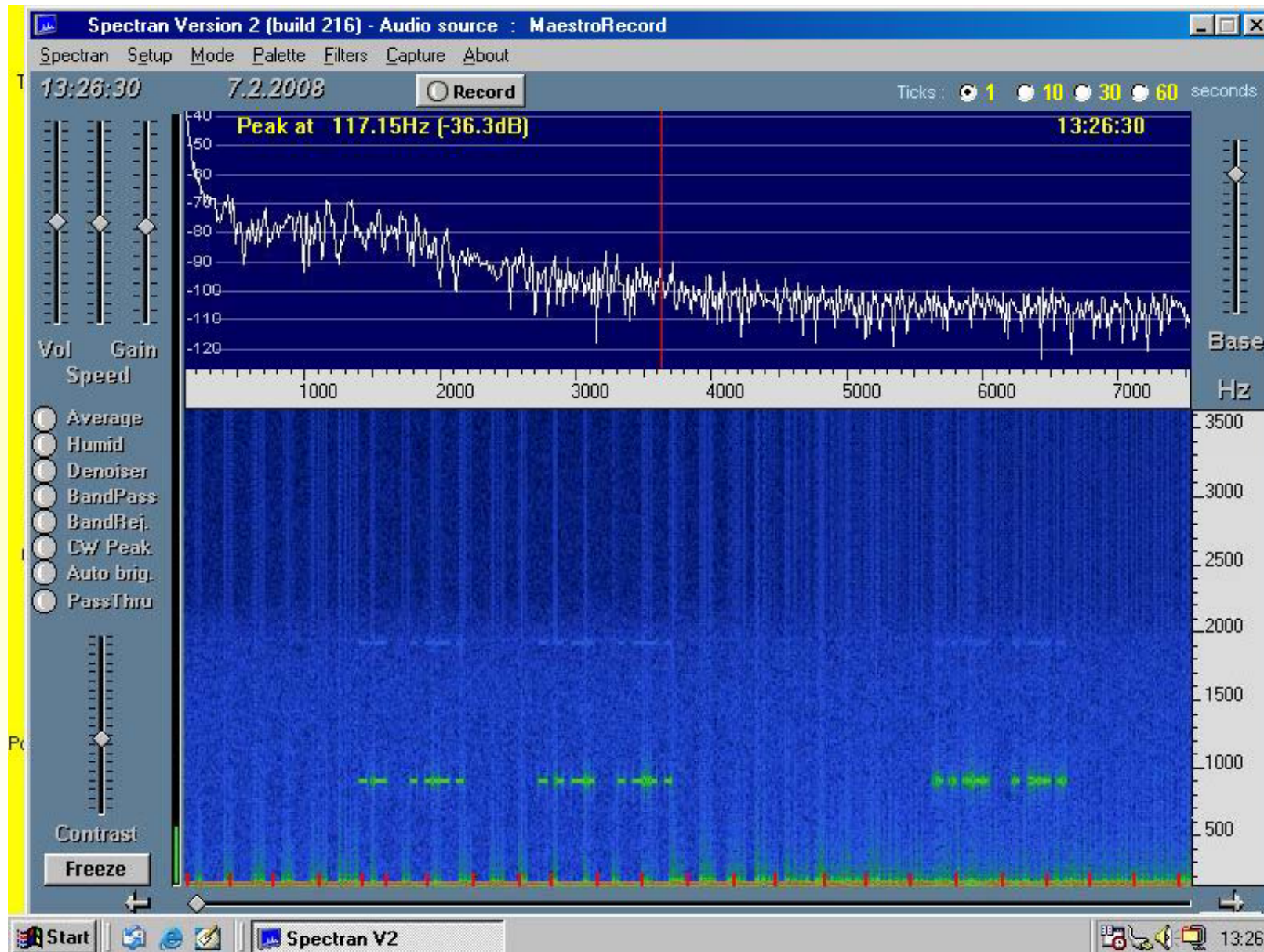
na DV

na SV + KV

na VKV



# NDB a VOR – letecké radiomajáky na DV



# HFDL

## Provoz USB



San Francisco USA	2947, 4672, 5508 6559, 8927, 11327, 13276, 21934
Molokai (Hawaii) USA	2878, 3019,3434, 5463, 5508, 5538, 8936, 10081, 11348, 1793
Reykjavick ICE	3316, 3900, 5720, 6712, 8977, 11184, 15025
New York USA	3428, 5523, 6652, 8912, 11315, 13276, 21928, 21931, 21937
Auckland NZA	3016, 3404, 5583, 6583, 8921, 10084, 11327, 13351, 17916, 21949
Hat Yai THA	4687, 5655,6535, 8930, 10066, 13309, 13351, 17928, 21949
Shannon IRL	2998, 3455, 5547, 6532, 8843, 8943, 11384
Johannesburg SA	3016, 4681, 8834, 13321, 21949
Barow (Alaska) USA	4654, 6646, 8936, 100093, 11354
Annapolis USA	8885
Anchorage (Alaska)	11354
SantaCruz BOL	8957, 13315, 21967
Krasnojarsk RUS	10087, 13321
Bahrain BAH	8885, 11312, 17967, 21982
Guam GUM	11306, 13339, 17919



# Sledování letadel na KV



The screenshot shows the DX Atlas software interface. The main window displays a map of Europe with several flight paths highlighted in blue. The flight paths are labeled with call signs: CO0037, CO0079, LH8413, UP6817, SU0230, SU0128, and SU0172. A decoder window titled "PC-HFDL 635-3 HFDL Decoder" is open in the foreground, showing a spectrum display with six channels labeled 4, 3, 2, 1, 0, 12, and 11. The decoder window displays the following text:

```
12:48:39 UTC REYKJAVICK - ICELAND DB = 26 SV = 0 GS UP LIGHT OFFSET 3  
Listening  
janasek@iol.cz  
12:47:12 UTC Flight ID = LH8413 LAT 50 25 32 N LON 10 36 23 E  
Preamble 300 bps 1.8 sec Interleaver FREQ ERR -11.298075 Hz Errors 0  
[MPDU 12:47:12 AIR CO0079 SLOT 4 300 BPS ]  
[LPDU UNNUMBERED DATA FM AIR CO0079 TO GND]  
[HFNPDU PERFORMANCE]  
12:47:08 UTC Flight ID = CO0079 LAT 51 46 30 N LON 2 41 0 W  
Preamble 300 bps 1.8 sec Interleaver FREQ ERR -63.186721 Hz Errors 12  
12:47:03 UTC REYKJAVICK - ICELAND DB = 26 SV = 0 GS UP LIGHT OFFSET 3  
REYKJAVICK - ICELAND UTC LOCKED Active freqs (Hz) 3 4 5  
AGANA - GUAM UTC LOCKED Active freqs (Hz) 9 13  
UNKNOWN UTC LOCKED Active freqs (Hz) 1 3
```

The decoder window also has an "Options" section with the following settings:

- Log to Disk
- DxAtlas
- Airmaster Logs
- Squitters
- Spectrum

The "Aircraft Data" section shows the following information:

Call Sign	Flight ID
LH8413	CO0079
CO0079	SU0128
CO0037	CO0061
CO0061	UP6817
UP6817	SU0230
SU0230	SU0172

The Windows taskbar at the bottom shows the Start button, the DX Atlas application, and the system tray with the time 13:48.

# SelCal – „znělky“ letadel

**Active Frequency Selection:**

Active Frequency (in KHz):  
5598

OK Cancel

**Selcal Data Received**

Selcal	Regist	Type	Comp	Callsign	Freq	Date	Time
ABFM	N600CL	CL60	BIZ			20030209	205003
EMDQ	TC-AFK	B737	PGT			20030209	205718
GMPQ	DQ-FJF	B737	FJI			20030209	211539
MRAH	S5-AAC	A320	ADR				
EMLR	VH-TAK	B737	QFA				
AGCR	N643UA	B767	UAL				
FHAB	N990UA	B737	UAL				
AFDG	16804	L382	AF				
BMAQ	N929UP	B727	UPS				
FHMP	N473AA	DC9	AAL				
DGHP	G-BYGF	B744	BAW				
HMFK	PK-GSD	B742	GIA				
HMQR	N1472B	F100	AAL				
AQLM	N778UA	B777	UAL				
JQDL	N8888B	A300	CAL				
AEBL	Select				5598	20030210	194432
BRDS					5598	20030210	201420

**OWN LT : 10 II 2003 20:15 UTC : 10 II 2003 19:15**

Load Own File **5598.00** OWN\_UTAE.TXT RxCtrl Exit

Organisation	ITU	Lang	Time(UTC)	Frequencies
MWARA/NAT-A				3016 5598 8906 13306 17946
MWARA/NAT-B				2899 5616 8864 13291
MWARA/NAT-C				2872 5649 8879 11336 13306
MWARA/NAT-D				2971 4675 8891 11279 13291 17946
MWARA/NAT-E				2962 6628 8825 11309 13354 17946

DEMO Mode Activated  
Limitations: 30 minutes use each session  
15 days Evaluation period

Click here for Online Registration:  
you receive your registration codes  
by email immediately!

Decoding Progress: [ ] Signal Strength: [ ] 33%

Receiving Not Recording 17 Local Time: 2003.02.10 20:15:29

Start LT : 10 II 2003 20:15 A... OWN LT : 10 II 20... AirNav Selcal Decoder 1.1... 20:15

# ALE – Fenix na KV



MIL-STD 188-141A CN2 H.F. Automatic Link Establishment Controller

File Edit Configuration Channels Addresses Scan Call Data Clear Fill Help

TUNE

VOL

[CMD CRC EBC4]  
[RX] [CH 00] [[CMD 7B 57 44]] [E]  
[CMD ]  
[RX] [CH 00] [TO CBY] [E]  
[15:02:07] [FRQ 0] [SND] [ ] [TWS] [CRO] [ ] [AL0] BER 30 SN 25  
[RX] [CH 00] [TWS CRO] [TWS CRO] [TWS CRO] [E]  
[CMD ]  
[RX] [CH 00] [TO CBY] [E]  
[15:02:03] [FRQ 0] [SND] [ ] [TWS] [CRO] [ ] [AL0] BER 29 SN 27  
[RX] [CH 00] [TWS CRO] [TWS CRO] [TWS CRO] [E]  
[15:01:40] [FRQ 0] [SND] [ ] [TWS] [HAW] [ ] [AL0] BER 19 SN 00  
[RX] [CH 00] [TWS HAW] [TWS HAW] [TWS HAW] [E]  
[15:01:37] [FRQ 0] [SND] [ ] [TWS] [HAW] [ ] [AL0] BER 19 SN 00  
[RX] [CH 00] [TWS HAW] [TWS HAW] [TWS HAW] [E]  
[15:01:00] [FRQ 0] [SND] [ ] [TIS] [532] [ ] [AL2] BER 6 SN 00  
[RX] [CH 00] [TIS 532] [TIS 532] [E]  
[14:59:23] [FRQ 0] [SND] [ ] [TWS] [523] [ ] [AL0] BER 11 SN 00  
[RX] [CH 00] [TWS 523] [TWS 523] [E]  
[14:59:19] [FRQ 0] [SND] [ ] [TWS] [523] [ ] [AL0] BER 20 SN 00  
[RX] [CH 00] [TWS 523] [TWS 523] [E]

FRQ 0 USB SYNC PAUSE RX

Start MIL-STD 188-141A C... 16:06

**WACARS Version 0.7**

File Edit Search Options Window Help

Position Map

Flights Contacted

- \*\_6806 in N315UP First Contacted at
- \*06806 in N311I First Contacted at 14
- 400:1 in A6-EK First Contacted at 1
- 37OHNM in D-ABTA First Contacted at
- 42N252 in Q7R4 First Contacted at 11
- LA935 in B-2410 First Contacted at
- MU0500 in D-2801 First Contacted at
- MU0558 in B-2381 Last Contacted at 1
- OM0000 in G-EOMA First Contacted at
- OM0000 in G-EOMA Last Contacted at 1
- Q2593H in HL7419 First Contacted at
- Q2593H in HL7419 Last Contacted at 1
- AEROFLOT SJLMJN in VP-BAY First Cont

Aircraft Contacted

- 4R-1 Operating as UL505 First Contac
- 4R-ALD Operating as ULQ047 First Cent
- 4R-ALD Operating as UL0547 First Cont
- 4R-ALD Operating as UL0047 Last Conta
- 7R Operating as KL1360 First Contacte
- 82602 Operating as LH0591 First Conta
- 9A-39 Operating as OU3422 First Conta
- 9A-CTH AIREUS A.319-112 Operating as C
- 9A-CTI Operating as OU0410 First Cont
- 9A-CTI Operating as OU0410 Last Conta
- 9A-CTI Operating as OU0411 First Cont

0331MESS.LOG

```
Using Ground Station X Birmingham.Mes
Message Type *_ NO INFORMATION TO TRA
-----
B-HMF BOEING 747-2L5B
AIR HONG KONG LD0002
Using Ground Station G Glasgow.Messag
Message Type CO LINK TEST
-----
B-HMF BOEING 747-2L5B
AIR HONG KONG LD0002
Using Ground Station X Birmingham.Mes
Message Type CO LINK TEST
```

Raw Data Log

```
F<SI><ETX>
B<HT>=<CAN>e$<SI>{<EOT>Q A|`?lad>9Dc<
2|&.M<SYN><SYN><SOH>
X..B-HMF<NAK>
Qnq<RTX>
M44ALD0002<ETX>
<SYN>j..?Q2=R729j..DE?2VM>2..000M <HT>Q<
<NUL>-+<BS>L@eB s<EM>D<F2>qgF<DC3>{<V
yx8<ACK>
cCUP<_<CAN>>C<DLE>]0c;j<l<ETX>
```

Signal Strength CPU Load

Start WACARS WACARS Version 0.7 21:52




# Program Acarsd

acarsd 1.65 - (C).2003-2006 by KJM acarsd@acarsd.org

Sat, 09 Feb 2008 - 21:27

acarsd Windows Search Map News Translation Database DDE Server

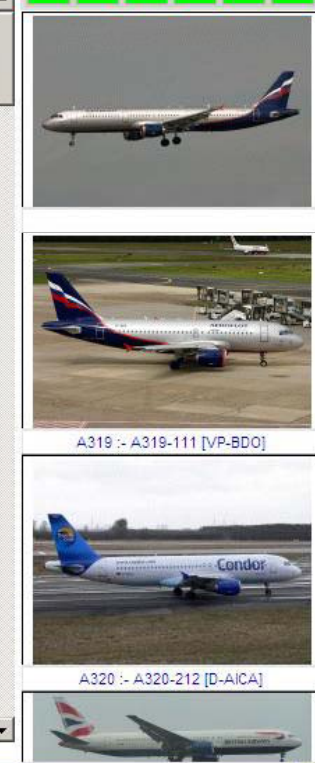


*acarsd*  
Free ACARS Decoder

(C)opyright 2003-2006 by KJM  
web: [www.acarsd.org](http://www.acarsd.org) --\*-- email: [acarsd@acarsd.org](mailto:acarsd@acarsd.org)  
Parts written by RH <[eddh@acarsd.org](mailto:eddh@acarsd.org)>  
acarsd is available for Linux and Windows  
acarsdgui version 0.27.008

It is not allowed to monitor all radio frequencies in every country!  
The author cannot be held liable for any legal consequences

ACARS mode: G Aircraft req: VP-BWP [Airbus A321-111]



A319 :- A319-111 [VP-BDO]  
A320 :- A320-212 [D-AICA]

09 Feb 2008 - 21:27:04 Fetching informations for 'BA0875' from [www.acarsd.org](http://www.acarsd.org)  
09 Feb 2008 - 21:27:04 Found data 'DME-LHR' for request 'BA0875'  
09 Feb 2008 - 21:27:10 Added flightnumber BA0875 DME-LHR to your database  
09 Feb 2008 - 21:27:29 Checked positions: 54.00 / 47.00 / 2.00 / 29.00  
09 Feb 2008 - 21:27:35 Checked positions: 54.00 / 47.00 / 2.00 / 29.00

[ Good: 10, Upl: 0, Dupes: 5, Parity: 0, block: 0, crc: 0, Msgs: 18, SkySpy: 0 ] [ Vol: 17|0|0 ] [ Ext: ON ] [ CRC: OFF ] [ 8 - 8 Unique flights ] NO SERVER DDE

Start | acarsd | acarsd 1.65 - ... | The latest 0 pos... | Ovládání záznamu | CS | 21:27

# Sledování letadel na VHF

acarsd 1.65 - (C).2003-2006 by KJM acarsd@acarsd.org

Sat, 09 Feb 2008 - 21:48

acarsd Windows Search Map News Translation Database DDE Server

Alternative view  
Export content of this window

Card	Channel	Link	Time	Date
0	-	D	2146	20080209
0	-	D	2146	20080209
0	-	D	2146	20080209
0	-	D	2146	20080209
0	-	D	2147	20080209
0	-	D	2147	20080209
0	-	D	2147	20080209
0	-	D	2148	20080209

**The latest 8 position reports**

Legend:  
 ● Airports  
 ● Waypoints  
 ● Servers  
 ● Position msgs.  
 ● Your server

**I-BIMO on flight AZ0518**  
 #DFB007,1063,XXXXX/N20817,081,39,076,04576,0093/T2100,101,020

**I-BIMO on flight AZ0518**  
 #DFB00000/V203,13,113,134,01,00,1,22222422222111/V8038,086,000

**N478GS on flight GS0001**  
 (2N48299E 14346— 40400—[Z

09 Feb 2008 - 21:46:45 Checked positions: 54.00 / 47.00 / 2.00 / 29.00  
 09 Feb 2008 - 21:47:10 Checked positions: 54.00 / 47.00 / 2.00 / 29.00  
 09 Feb 2008 - 21:47:16 Checked positions: 54.00 / 47.00 / 2.00 / 29.00  
 09 Feb 2008 - 21:47:41 Checked positions: 54.00 / 47.00 / 2.00 / 29.00  
 09 Feb 2008 - 21:48:06 Checked positions: 54.00 / 47.00 / 2.00 / 29.00

09. Feb 2008 - 21:36:35  
 Flight: AB883H (LOWW-EDDT)  
 Registration: D-AGES  
 Aircraft type: B737-75B

09. Feb 2008 - 21:27:53  
 Flight: BA0706 (LHR-VIE)  
 Registration: G-EUXL  
 Aircraft type:

A319 :- A319-112 [I-BIMG]

**P45CM**  
 Leider kein Bild vorhanden  
 No Image available

A321 :- A321-211 [VP-BRW]

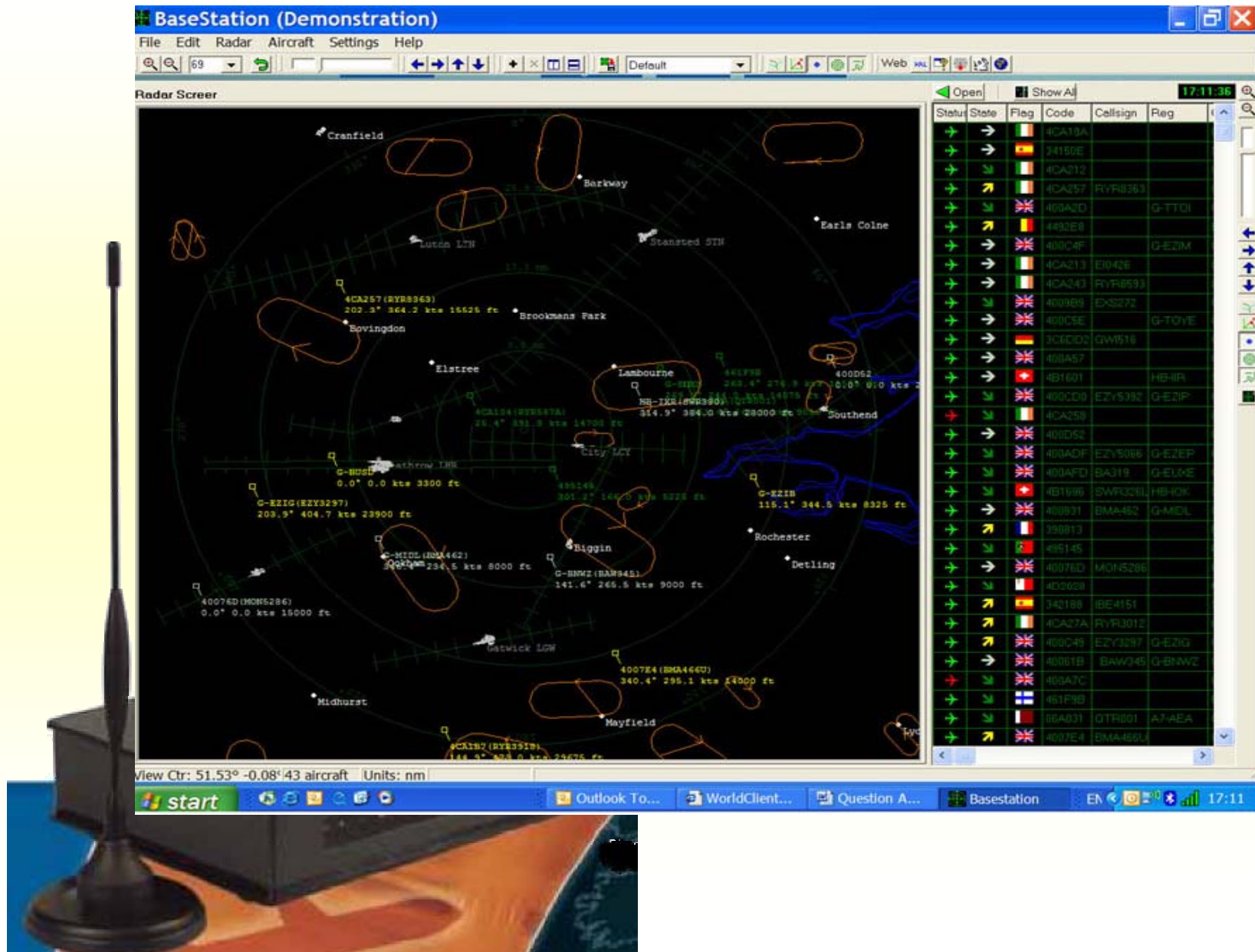
A321 :- A321-211 [VP-BRW]

Condor

[ Good: 46, Upl: 0, Dupes: 10, Parity: 0, block: 0, crc: 1, Msgs: 59, SkySpy: 0 ] [ Vol: 18|0|0 | Ext: ON ] [ CRC: OFF ] [ 18 - 18 Unique flights ] NO SERVER DDE

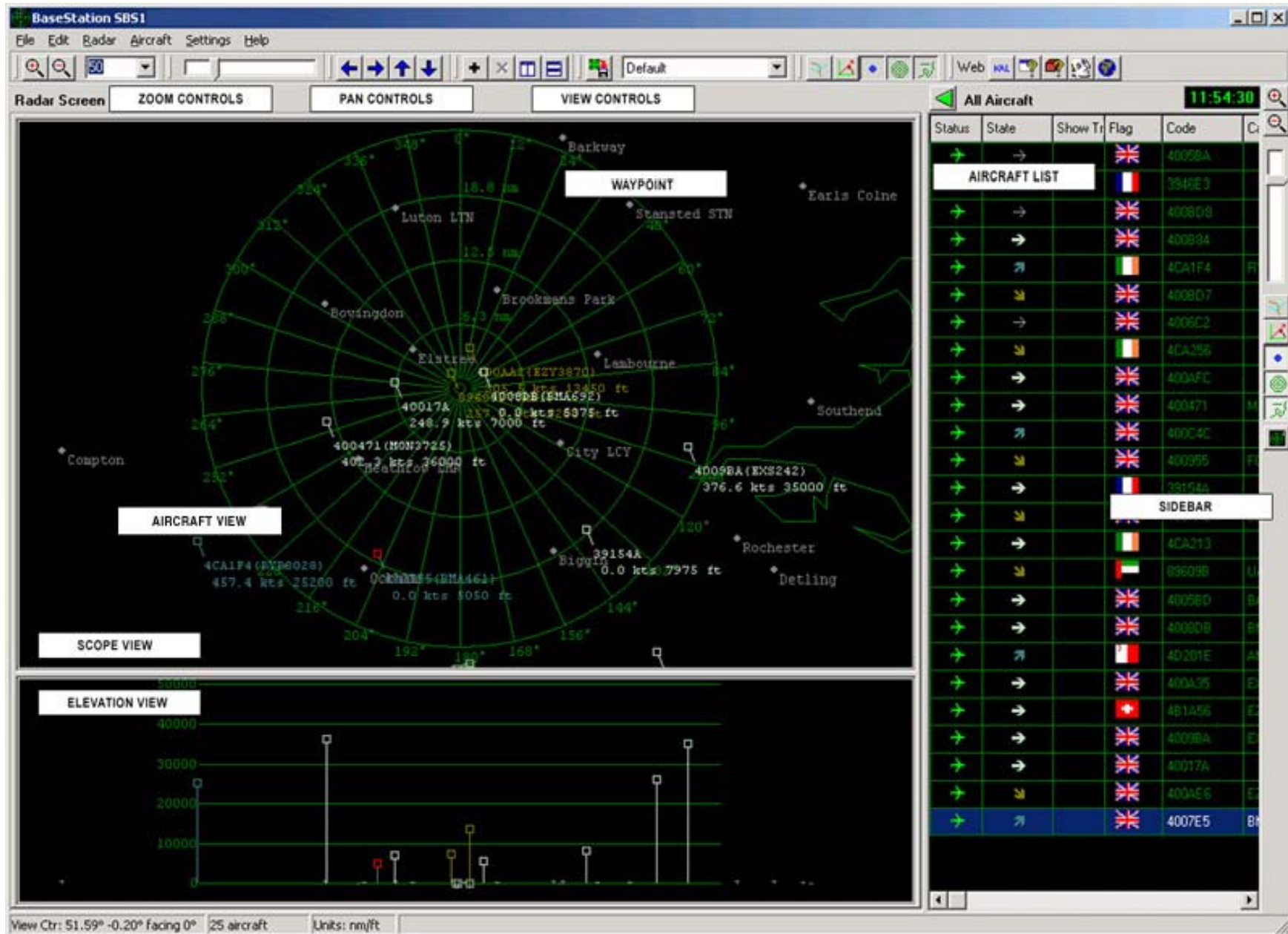
Start acarsd acarsd 1.65 - (C... The latest 8 p... Ovládání záznamu Acarsd4.JPG - ... CS 21:48

# Monitoring letadel pomocí SBS-1





# Monitoring letadel pomocí SBS-1



# Počasí pro letecký provoz

## VOLMET/ATIS

- **Všeobecná situace:** clear, gloomy, overcast, cloudy, obscure, foggy, sunny, smouky, calm
  - **Dohlednost - visibility :** v km nebo mílích
  - **Pokrytí oblohy v osminách:**
    - 1/8 one octer – skoro jasno
    - 4/8 four octer-polojasno
    - 8/8 eight octer- zataženo
  - **Směr a síla větru- winds:** degrees meters, knots,
- **Tlak na výšku letiště – QNH** buď v hPa, popř v inch
  - **Teplota – temperature:** degrees, Farenheit

# VOLMET frekvence

Honolulu h+00, 05, 25, 30, 35, 55 ;	2869	Shannon VOLMET h+00-25, h+30-55	5505	Samaru h+15, 45 ;	8888
Tokyo h+10, 40 ;	2869	Beijing VOLMET h+00, 30 (0900-1645UTC),	5673	Yekaterinburg (Koltsovo) h+05, 35 ;	8888
Hong Kong h+15, 45 (If required)	2869	Guangzhou VOLMET h+10, 40	5673	Novosibirsk h+10, 40 ;	8888
Syktvykar h+00, 30 ;	2869	(0000-1600UTC);	5673	Tyumen h+20, 50	8888
Yekaterinburg (Koltsovo) h+05, 35 ;	2869	(China) (Night frequency)	5673	(Night frequency)	8952
Novosibirsk h+10, 40 ;	2869	Kirensk h+00, 30 ;	5691	Shannon VOLMET h+00 - 25, h+30 – 55	8952
Samara h+15, 45 ;	2869	Irkutsk h+25, 55 (H24)	5691	Brazilian VOLMET Belem,	10057
Tyumen h+20, 50	2869	Brazilian METEO	6603	Brasilia,	10057
(Night frequency)	2869	Belem,	6603	Porto Alegre (Continuous 24h);	10057
Taipei h+07	2880	Brasilia,	6603	Asuncion VOLMET h+05, 15	10057
St.Petersburg h+05, 10, 35, 40 ;	2941	Porto Alegre,	6603	(0905-2315UTC every 3 h, or if	10057
Rostov h+25, 55	2941	Manaus	6603	necessary each hour.)	10057
(Night frequency)	2941	(Continuous 24h)	6603	Brazzaville (Congo) h+00, 30	10057
Calcutta (Kolkata) h+05, 35 (24h);	2965	New York VOLMET h+00, 30;	6604	Antananarivo (Madagascar) h+25, 55	10057
Bangkok h+10, 40 (1210-2240UTC);	2965	Gander VOLMET h+20, 50	6604	(0225-1930UTC)	10057
Karachi h+15, 45 (1515-0115UTC);	2965	St.Petersburg h+05, 10, 35, 40;	6617	Khabarovsk h+05, 35 ;	10090
Mumbai (Bombay) h+25, 55	2965	Rostov h+25, 55 (H24)	6617	Tashkent h+10, 40 ;	10090
Baghdad	3001	Sydney h+00, 30 ;	6676	Transmission in english. (H24)	10090
Kirensk h+00, 30 ;	3116	Calcutta (Kolkata) h+05, 35	6676	(Tbilisi h+00, 30 ;)	11279
Irkutsk h+25, 55	3116	(0305-1240UTC) ;	6676	Aktyubinsk h+05, 35 ;	11279
(Night frequency)	3116	Bangkok h+10, 40 ;	6676	(Almaty h+10, 15, 40, 45 ;)	11279
(Tbilisi h+00, 30 ;)	3407	Karachi h+15, 45 ;	6676	Tashkent h+20, 50	11279
Aktyubinsk h+05, 35 ;	3407	Singapore h+20, 50 (1250-2225)	6676	(Daytime frequency)	11279
(Almaty h+10, 15, 40, 45 ;)	3407	Mumbai (Bombay) h+25, 55.	6676	St.Petersburg h+05, 10, 35, 40;	11297
Tashkent h+20, 50	3407	Honolulu h+00, 05, 25, 30, 35, 55 ;	6679	Rostov h+25, 55	11297
(Night frequency)	3407	Tokyo h+10, 40 ;	6679	(Daytime frequency)	11297
Shannon VOLMET h+00 - 25, h+30 – 55	3413	Hong Kong h+15, 45 ;	6679	Syktvykar h+00, 30 ;	11318
(1800-0530UTC)	3413	Auckland h+20, 50.	6679	Yekaterinburg (Koltsovo) h+05, 35 ;	11318
Bangkok (Test use only.)	3432	Trenton (Canada) h+20 (2320-1020UTC),	6754	Novosibirsk h+10, 40 ;	11318
Beijing VOLMET h+00, 30	3458	Edmonton	6754	Samara h+15, 45 ;	11318
(0900-1645UTC),	3458	Baghdad	8819	Tyumen h+20, 50	11318
Guangzhou VOLMET h+10, 40	3458	Honolulu h+00, 05, 25, 30, 35, 55 ;	8828	(Daytime frequency)	11318
(0000-1600UTC);	3458	Tokyo h+10, 40 ;	8828	Sydney h+00, 30;	11387
(China) (Night frequency)	3458	Hong Kong h+15, 45 ;	8828	Calcutta (Kolkata) h+05, 35	11387
New York VOLMET h+00, 30;	3485	Auckland h+20, 50.	8828	Bangkok h+10, 40 (2310-1145UTC);	11387
Gander VOLMET h+20, 50	3485	Beijing VOLMET h+00, 30 (0000-0845U	8849	Karachi h+15, 45 (0145-1450UTC);	11387
Almaty meteo (Relayed transmission,	3545	Guangzhou VOLMET h+10, 40	8849	Singapore h+20, 50 (2250-1225UTC);	11387
doubt to be temporary assembly)	3545	(0000-1600UTC);	8849	Mumbai (Bombay) h+25, 55.	11387
h+10, 15, 40, 45	3545	(China) (Daytime frequency)	8849	Taipei h+07	12400
Tallinn ATIS	4645	Kirensk h+00, 30 ;	8861	Brazzaville (Congo) h+15, 45	13261
Khabarovsk h+05, 35 ;	4663			Hong Kong h+15, 45 ;	
Tashkent h+10, 40 ;	4663				
Transmission in english.	4663				

# Námořní provoz

telegrafie, fone, digitální módy



**Vysílání a příjem pro obecnou radiovou lodní komunikaci**

**Vysílání tísňového volání z lodě do záchranného centra**

**Vysílání a příjem tísňového volání mezi loděmi.**

**Vysílání a příjem signálů pro lokalizaci lodě v tísni.**

**Vysílání a příjem námořních bezpečnostních informací.**

# Námořní provoz - frekvence

CBV	VALPARAISO PLAYA ANCHA		8677.0	12741.0	17146.4	CW	WX IN SPANISH - ALSO 4228.0 KHZ
PWZ33	RIO DE JANEIRO NAVAL		4289.0	6435.0	8550.0	FEC	ALSO 12795/17160/22530 - WEATHER
9VG	SINGAPORE		6412.0			CW	LOCAL NAV WARNINGS
D3E	LUANDA, ANGOLA		8565.0	12780.0	17189.6	CW	LOCAL NAV WARNINGS
VIP	PERTH, AUSTRALIA	1	12365.0	8176.0	6507.0	USB	NAVAREA X, LOCAL NAV WARNINGS, WEATHER
ZBM	BERMUDA HARBOUR RADIO		476.0			CW	LOCAL NAV WARNINGS AND WEATHER
VIP	PERTH, AUSTRALIA		4323.0	8597.0	12994.0	CW	WX ODD HR+18
XSW	KAO HSLUNG, TAIWAN		8582.0	8632.0		CW	LOCAL NAV WARNINGS/ODD+18
XVG	HAIPHONG, VIETNAM		8470.0			CW	WX HOURLY+18
XSV	TIANJIN, CHINA		8600.0			CW	LOCAL NAV WARNINGS HOURLY+18
VPS	HONG KONG	1	17192.0	17096.0	13031.0	CW	LOCAL NAV WARNINGS/WX HR+18
OZL	ANGMAGSSALIK, GREENLAND		2250.0			USB	LOCAL NAV WARNINGS
2PC	PENTA COMSTAT, AUSTRALIA		4483.0	8294.0		USB	WEATHER
3BM	MAURITIUS		4282.0	8554.0	12831.0	CW	LOCAL NAV WARNINGS AND WEATHER
CFH	HALIFAX, N.S., CANADA		4285.0	8440.0	6491.5	CW	WEATHER
CFH	HALIFAX, N.S., CANADA	1	12874.0	16948.5	22619.5	CW	WEATHER
GKA	PORTISHEAD, ENGLAND		4286.0	8545.9	12822.0	CW	ALSO 17098.4, 22467 KHZ - WEATHER
NMN	USCG PORTSMOUTH		518.0			FEC	NAVTEX (N)
NMO	USCG HONOLULU, HI		8416.5	12579.0	22376.0	FEC	WEATHER
VIS/VIX	SYDNEY, AUSTRALIA	2	22485.0	16918.8	12907.5	CW	WEATHER (ALSO 8478, 6428.5, 4286 KHZ)
FFB	BOULOGNE, FRANCE		1692.0			USB	LOCAL NAV WARNINGS
GNE	NORTH FORELAND, UK		1707.0			USB	LOCAL NAV WARNINGS
NMN13	USCG CAPE HATTERAS, NC		2670.0			USB	LOCAL NOTICE TO MARINERS AND WEATHER
UFA	BATUMI, GEORGIA		3630.0			USB	LOCAL NAV WARNINGS
VIM	MELBOURNE, AUSTRALIA		4228.5	8607.0		CW	WEATHER
VON	ST JOHN'S, NELD, CANADA		478.0			USB	LOCAL NAV WARNINGS, WX, ICE
FFP	FT. DE FRANCE, MARTINIQUE		2545.0			USB	WX ODD HR+33
2PC	PENTA COMSTAT, AUSTRALIA		8294.0	13176.0		USB	WEATHER
CBV	VALPARAISO PLAYA ANCHA		2738.0	4357.0		USB	WEATHER IN SPANISH
L2B*	BUENOS AIRES, ARGENTINA		2065.0	6218.6	8291.1	USB	LOCAL NAV WARNINGS
OX1	GODTHAB, GREENLAND		2116.0	2225.0	2400.0	USB	LOCAL NAV WARNINGS
VOK	LABRADOR, LAB, CANADA		2598.0			USB	WEATHER AND ICE
NME	USCG BOSTON, MA		6314.0	8416.5	12579.0	FEC	NAVAREA IV, HYDROLANT, AND WEATHER

# Námořní provoz - Maritime

2.5900	Athinai Radio SVN	1.7150	Hebrides Coast Tx	2.7790	Stonehaven Coast Tx
2.7990	Iraklio Radio SVH	1.8270	Wick Coast Tx	2.7820	Lands End Coast Tx
2.8300	Kerkyra Radio SVK	1.8380	Cullercoats Coast Tx	2.8100	Humber Coast Tx
2.7300	Limnos Radio SVR	1.8560	Stonehaven Coast Tx	2.8280	Cullercoats Coast Tx
2.6240	Rodos Radio SVR	1.8660	Stonehaven Coast Tx	2.8400	Shetland Coast Tx
2.6560	Ancona Radio IPA	1.9250	Humber Coast Tx	3.2490	Stonehaven Coast Rx
2.6280	Augusta Radio IQA	1.9460	Stonehaven Coast Tx	3.2520	Lands End Coast Rx
2.5790	Bari Radio IPB	1.9530	Cullercoats Coast Rx	3.3280	Shetland Coast Rx
2.6800	Cagliari Radio IDC	2.0020	Lands End Coast Rx	3.3350	Shetland Coast Rx
1.8880	Civitavecchia Rad IPD	2.0060	Shetland Coast Rx	3.5380	Shetland Coast Tx
2.6630	Crotone Radio IPC	2.0130	Wick Coast Rx	3.6100	Shetland Coast Tx
2.6420	Genova Radio ICB	2.0160	North Foreland Coast	3.6100	Lands End Coast Tx
1.8760	Lampedusa Radio IQN	2.1040	Portpatrick Coast Rx	3.6170	Stonehaven Coast Tx
1.9250	Livorno Radio IDL	2.1110	Humber Coast Rx	3.7500	Cullercoats Coast Tx
2.6000	Mazara Vallo Rad IQQ	2.1460	Stonehaven Coast Rx	1.8830	Clyde 00:20 08:20
2.7890	Messian Radio IDF	2.2770	Shetland Coast Rx	1.8690	Yarmouth 00:40 08:40
2.6320	Napoli Radio IQH	2.3810	Wick Coast Rx	1.6410	Solent 00:40 08:40
1.8520	Palermo Radio IPP	2.5240	Wick Coast Rx	1.7700	Shetland 01:05 09:05
2.7190	Porto Torres Rad IZN	2.5270	Cullercoats Coast Rx	1.7430	Stornoway 01:10 09:10
1.8550	San Benedetto Rd IQP	2.5340	Hebrides Coast Rx	2.2260	Falmouth 01:40 09:40
2.6240	Trieste Radio IQX	2.5480	Wick Coast Rx	2.7190	Tyne Tees MSI
1.6500	CROSS Corsen, GrisNez	2.5520	Stonehaven Coast Rx	1.8800	Holyhead 02:35 10:35
2.6770	Corsen, Nez, LaGarde	2.5550	Stonehaven Coast Rx	2.2260	Aberdeen 03:20 07:20
1.6960	LaGarde	2.5590	Cullercoats Coast Rx	1.7670	Milford 03:35 07:35
1.8760	Lampedusa Radio IQN	2.5620	Humber Coast Rx	2.2260	Humber 03:40 07:40

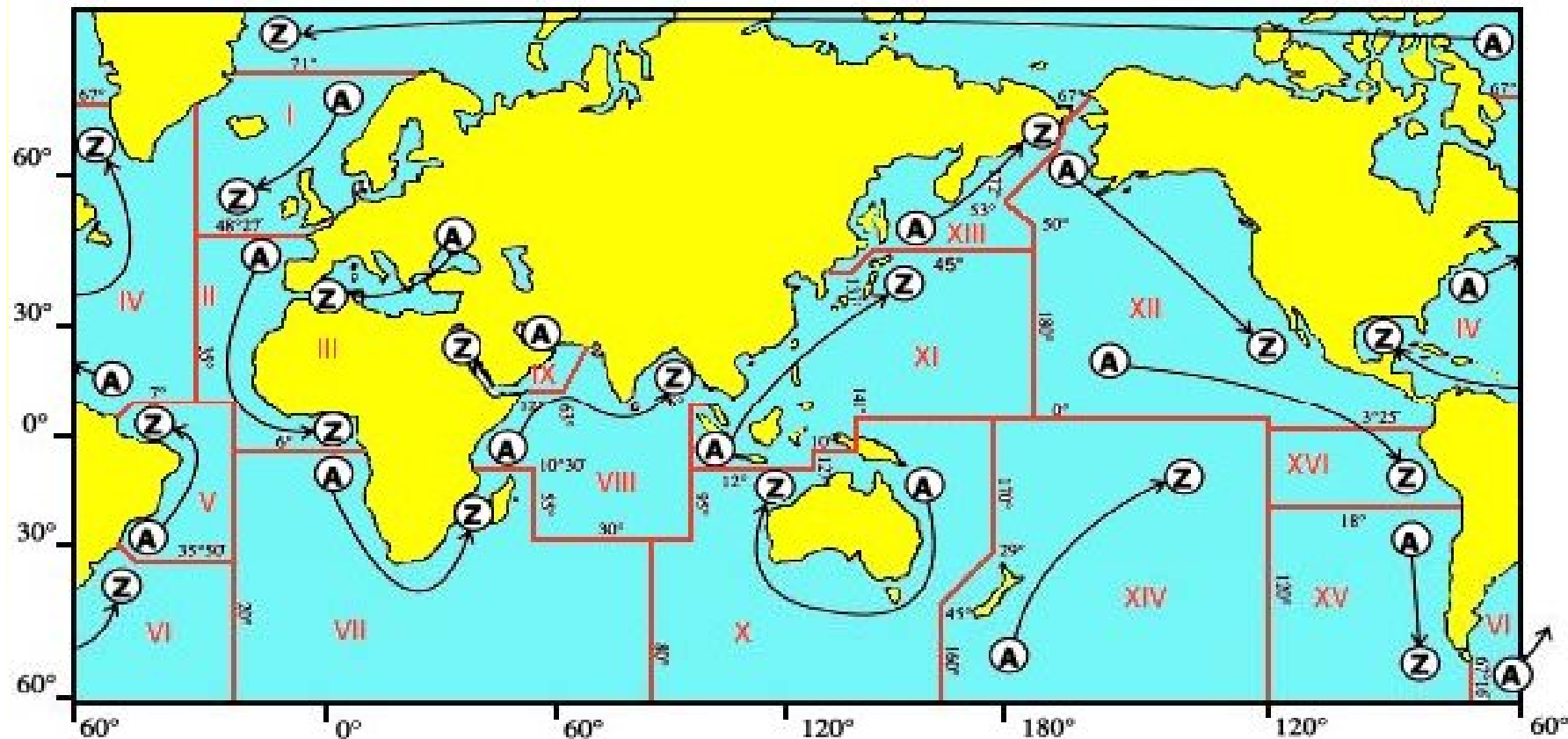
# Navtex –SITOR B



Varovná radiová služba pro lodní dopravu, součást systému **GMDSS**

- Global Maritime Distress and Safety System  
na kmitočtu 518 kHz

- proto např. zprávy o počasí jen od síly větru 7 Bft



# DSC

jako radiová služba pro lodní dopravu, součást systému GMDSS

## DSC-telex

2187,5 kHz

4207,5 kHz

6312,0 kHz

8414,5 kHz

12577,0 kHz

16804,5 kHz

## SSB-J3E

2182 kHz

4125 kHz

6215,5 kHz

8291 kHz

12290 kHz

16420 kHz

## RTTY (ARQ, 100Bd)

2174,5 kHz

4177 kHz

6268 kHz

8376,5 kHz

12520 kHz

16695 kHz

## Maritime Safety Informations

Fone 1883, 1869, 1641, 1770, 2226,4210, 6314, 8416.5,  
12579, 16806.5, 19608.5, 22376 a 26100.5 kHz



# Navtex -námořní varovné zprávy



RadioCom 4.0 (AOR-7030)

516640

60 200 400 600 800 1000 1200 1400 1600 1800 2050 2250 2450 2650

USB GWN RTTY  
LSB CW FAX  
AMN ASD ASL  
AM ASF ASU  
DI Fi FM WFM

Vol 100 Hz 3.0 KHz

Neue Station Einstellung übernehmen Ändern Löschen Speichern

Frequenz (KHz)	Bereich (KHz)	Mod...	ZF	Deko...	Mod...	Baud	Mark	Shift	Polar...	Stop...	Bezeichnung
416.000	0.000	AM	3000	AUS		0	0	0		0.0	NDB E - V
432.000	0.000	AM	3000	AUS		0	0	0		0.0	NDB PK Prvek
437.000	0.000	AM	3000	AUS		0	0	0		0.0	NDB K Tomaszow/M...
438.000	0.000	AM	3000	AUS		0	0	0		0.0	NDB K
448.000	0.000	AM	3000	AUS		0	0	0		0.0	NDB HLV Holešov
518.000	0.000	USB	3000	RTTY	Sitor-B	100	1275	170	Invers	0.0	NAVTEX

Audio Fax Fax Sstv Sstv Rtty Rtty Cw Cw DCF77 Info

Dekoder

Shift 170 85 170 Pol. Inv LE FI

Mark 1275 425 850 sync Stop 1 1,5 2

Baudrate

45 50 57 75 100 110 150

Baudot synchron Baudot Sitor-B BPSK31

Text laden Text speichern Text drucken Schriftart

(WITH RACON D)  
D--..5 :-48, )85?796 8, 09.8589, : 51 22.04 N -PPW QEMUT E  
E-- NORTH CARDINAL LIGHTBUOY IN POSITION:1 22. N - 002 12.95  
F- SOUTH CARDINAL LIGHTBUOY IN POSITION: 51 25 5 N - 002 15.25  
UNDERWATER OPERATIONS ARE IN PROGRESS WITHIN 700 METERS OF WRECK  
MOORING BUOYS ARE RIDED BY UNCERTAINS MAKING.  
2. FURTHER WRECKAGE (SIZE 15 BY 5 METERS) LOCATED  
51 19.4 N - 002 1.7.7 . .- ?6 7,)858 ?796

# Bóje

## Námořní driftující

- doplňují lodní stanice
- automatický, bezobslužný provoz
- přenos dat o počasí do mezinárodní sítě pomocí satelitů na nízkých drahách



**Kódování protokolem FM 18-X:**

**ZZYY 44776 06041 0010/ 748330 039541 6111/  
11119 0//// 30227 40227 52035 22219 00117  
444 2011/ 06041 0022/ 80134 80100 90015=**

# Bóje

## Námořní upoutané

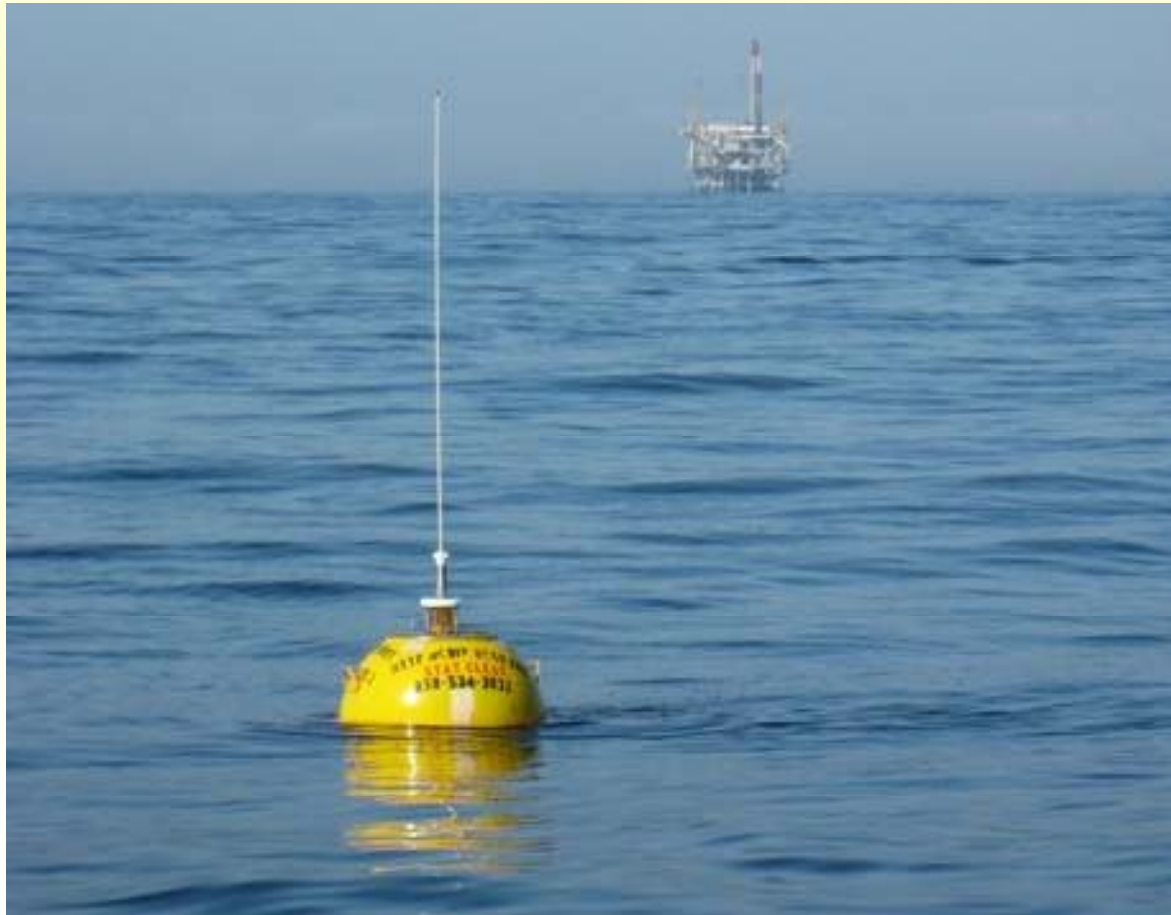
- rybářské sítě
- ropné plošiny
- automatický bezobslužný provoz

Vysílací rozsah: 1606,5 až 2850 kHz

Dosah: 50 až 120 km

Životnost baterie: 7300 hodin

Odolnost proti tlaku vody: 20 atm



# Záchranné EPIRB

# Bóje



- Globální tísňový a záchranný systém GMDSS
- 406 MHz
- 121,5 MHz
- 1,6 GHz družicové pásmo L ( 667 kanálů, rastr 300 Hz, od 1,645 GHz )
- automatický bezobslužný provoz



# Služby na satelitech

## podle užití

- Amatérské
- Vědecké
- Navigační
- Televizní, rozhlasové

## podle dráhy

- Geostacionární
- Pohyblivé vůči Zemi

## podle kmitočtů

- VHF
- UHF
- SHF