

Attachment A, Comms Forms

*Attachment A of the 2004-2005 season plans lists the, types,
schedules and frequencies of telecommunications equipment used by
the United States Antarctic Program.*

INFORMATION ON TELECOMMUNICATIONS EQUIPMENT AND SCHEDULES FOR THE YEAR 2004-2005
COUNTRY United States of America
ADDRESS FOR CORRESPONDENCE ON THIS INFORMATION:

 OFFICE OF POLAR PROGRAMS
 NATIONAL SCIENCE FOUNDATION
 ARLINGTON, VA 22230

STATION McMurdo
CALL SIGN NGD
LATITUDE 77°55'S **LONGITUDE** 166°39'E

TRANSMITTERS				RECEIVERS				REMARKS
TYPE	FREQUENCY BANDS	TYPES OF TRANSMISSION AND POWER	FREQUENCY SELECTION (CRYSTAL VFO, etc.)	TYPE	FREQUENCY BANDS	TYPES OF RECEPTION AVAILABLE	FREQUENCY SELECTION (CRYSTAL VFO, etc.)	
AN/FRT-83	2-30 MHz	1K08F1B, 3K00J3E 1K24F1B, 100H0A1A 1KW	SYNTHESIZED					
CM-200VT CM-200UT	116-149.95 MHz 225-399.95 MHz	6K00A3E, 10W 6K00A3E, 10W	SYNTHESIZED SYNTHESIZED	CM-200VR CM-200UR	116-149.95 MHz 255-399.95 MHz	6K00A3E 6K00A3E	CRYSTAL CRYSTAL	
AN/LST-5C	225-399.995 MHz	30K0F3E/20W	SYNTHESIZED	AN/LST-5C	225-399.995 MHz	30K0F3E	SYNTHESIZED	
RT-100	2-30 MHz	100H0A1A, 3K00J3E 100W	SYNTHESIZED	RT-100	2-30 MHz	100H0A1A, 3K00J3E	SYNTHESIZED	
RT-7000	2-30 MHz	100H0A1A, 3K00J3E	SYNTHESIZED	RT-7000	2-30 MHz	100H0A1A, 3K00J3E	SYNTHESIZED	
AN/PRC-1099	2-30 MHz	100H0A1A, 3K00J3E, 20W	SYNTHESIZED	AN/PRC-1099	2-30 MHz	100H0A1A, 3K00J3E	SYNTHESIZED	
AN/LST-5C	225-399.95 MHz	30K0F3E/20W	SYNTHESIZED	AN/LST-5C	225-399.995 MHz	30K0F3E	SYNTHESIZED	
SR-210	1.6-30 MHz	100H0A1A, 3K00J3E 150W	CRYSTAL	SR-210	1.6-30 MHz	100H0A1A, 3K00J3E	CRYSTAL	
DRAKE TR-7	2-30 MHz	100H0A1A, 3K00J3E	VFO	DRAKE TR-7	2-30 MHz	100H0A1A, 3K00J3E	VFO	
CUBIC T4150	1.6-30MHz	100H0A1A, 3K00J3E 1KW	SYNTHESIZED	CUBIC LCR2000	1.6-30 MHz	100H0A1A, 3K00J3E	SYNTHESIZED	
INMARSAT A TERMINAL	L BAND		VFO	INMARSAT A TERMINAL	L BAND			
NASA TDRSS EARTH STATION	KU BAND		SYNTHESIZED	NASA TDRSS	KU BAND		SYNTHESIZED	
USES INTELSAT EARTH STATION	C BAND		SYNTHESIZED	USES INTELSAT EARTH STATION	C BAND		SYNTHESIIZED	
NASA MGS	S, SKU BAND		SYNTHESIZED	NASA MGS	S, KU BAND		SYNTHESIZED	

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ANTENNA			FACSIMILE		TELEPRINTER		REMARKS	
TYPE	AZIMUTH (IN DEGREES OR OMNI)		INDEX OF COOPERATION	DRUM SPEED	TYPE	SPEED (bauds)		LIST OF AVAILABLE FREQUENCIES
RHOMBIC	088T	T	9165L/AE	120/240 (scans per minute vice rpm)	KPDT-3 (MOD-40)	75	US-14 ANTARCTIC BROADCAST/RATT WORKING	2650, 4872, 5810, 6397, 8092, 11004, 16321.5
RHOMBIC	088T	T	I of C N/A					
RHOMBIC	146T	T						
RHOMBIC	220T	T			KPDT-3 (MOD-40)	50-75	US-17 INTERNATIONAL ANTARCTIC COMMON	4771.5, 7996.5, 9007.5, 11554.5
7 CONICAL MONOPOLES	OMNI	T	9271D/H/AE	120/240 RPM	KPDT-3 (MOD-40)	75	US-4 SHIP SHORE*	2026.4, 2717.4, 3248.4, 8298.4, 12345.4, 12357.4
ROSETTE ARRAY	DIRECTIONAL	R	I of C N/A				US-5 LONG RANGE AIR TO GROUND*	4719.5, 5727.5, 6709.5, 9034, 11257.5, 13252.5
END-FIRE ARRAY	088T	T						

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TYPE	AZIMUTH (IN DEGREES OR OMNI)	INDEX OF COOPERATION	DRUM SPEED	TYPE	SPEED (bauds)		LIST OF AVAILABLE FREQUENCIES
CONICAL MONOPOLE	OMNI T/R			KPDT-3 (MOD-40)	75	US-6 AIR TO GROUND WEATHER*	10641, 12222, 14700
RHOMBIC	088T/146T/220T				75	US-9 AIR TO SHIP*	3103.5, 5697.5
						US-15 ANTARCTIC SHIP TO SHORE*	4242, 8420, 12630
						US-16 ANTARCTIC BROADCAST/RATT WORKING*	2572, 4147.4, 6225.4, 6365.5, 7340, 7750, 8298.4, 8678, 9073, 11156, 12098, 12457, 133551.5, 14805, 16860, 16529.4
						AA-1 DISTRESS AND CALLING SAR*	2183.4, 3023.5, 4127, 8364
						USB-2*	2717.4

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ANTENNA		FACSIMILE		TELEPRINTER		REMARKS	
TYPE	AZIMUTH (IN DEGREES OR OMNI)	INDEX OF COOPERATION	DRUM SPEED	TYPE	SPEED (bauds)		LIST OF AVAILABLE FREQUENCIES
7 METER DISH	VARIABLE					BI TDRSS (NASA)	KU BAND
11 METER DISH	VARIABLE					BI USES	C BAND
2 METER DISH	VARIABLE					BI INMARSAT	L BAND
10 METER DISH	VARIABLE					MCMURDO NASA MGS	S,KU BAND
CONICAL MONOPOLE	OMNI DIRECTIONAL					BI HF RCV	1.6-30 MHz
LOG PERIODIC	146					BI HF RCV PALMER	1.6-30 MHz
RHOMBIC	88					BI HF RCV CHCH	1.6-30 MHz
RHOMBIC	266					BI HF RCV POLE	1.6-30 MHz

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LATITUDE 77°55'S **LONGITUDE** 166°39'E

STATION WORKED	GMT		FREQUENCIES USED		CIRCUIT CONDUCT			REMARKS
	OPEN	CLOSE	TRANSMITTING	RECEIVING	TYPE OF EMISSION (See ccir 432) (X)	TYPE OF TRAFFIC	SX OR DX	
SOUTH POLE	OCT-- ON	--NOV CALL	2650 5810	7340 - P&SP 7750 - P&SP	1.24F1	ALL SYNOPS HOURLIES (AS REQUIRED) TERMINAL	DX	
	MAR-- 2000-- DAILY SUN-	--OCT --2130 LESS DAY	6397 8090 11004 4872	9073 - P&SP 13551.5 - P&SP				
			11554.5 9032 13252.5	11554.5 9032 13252.5	3A3J 3A3J	VOICE VOICE	SX SX	
PALMER	SAME AS ABOVE		SAME AS ABOVE	SAME AS ABOVE	SAME AS ABOVE	SAME AS ABOVE	SAME AS ABOVE	
INMARSAT COASTAL EARTH STATION SANTA PAULA, CA	TIME OPEN 18 HR. PER DAY. START AND STOP CHANGES WITH PERCESSION OF SATELLITE.		1.636-1.654 GHz	1.535-1.543 GHz		VOICE/DATA/ FACSIMILE		

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STATION Amundsen-Scott South Pole
CALL SIGN NPX
LATITUDE 90° S **LONGITUDE**

TRANSMITTERS				RECEIVERS				REMARKS
TYPE	FREQUENCY BANDS	TYPES OF TRANSMISSION AND POWER	FREQUENCY SELECTION (CRYSTAL VFO, etc.)	TYPE	FREQUENCY BANDS	TYPES OF RECEPTION AVAILABLE	FREQUENCY SELECTION (CRYSTAL VFO, etc.)	
MACKAY MSR 8000D	1.6-30 MHz 10 Channel	3K00J3E 6K00A3E 100HA1A 1KW	SYNTHESIZED	MACKAY MSR 8000	1.6-30 MHz	3K00J3E 6K00A3E 100HA1A	SYNTHESIZED	
ICOM 735	1.6-30 MHz 20 Channel	3K00J3E 6K00A3E 100HA1A 100W	SYNTHESIZED	ICOM R70 ICOM IC-735	0.1-30 MHz 0.1-30 MHz	3K00J3E 6K00A3E 100HA1A	VFO VFO	
Motorola Maxar Transceiver	135.5-149.3 MHz 4 Channel	16F3/20W	CRYSTAL	Motorola Maxar Transceiver	135.5-149.3 4 Channel	15K00FZD	CRYSTAL	ATS-3, not in use
REPCO Exciter	149.282	4F3/1W	CRYSTAL	Hamtronics	135.57 MHz	4F3	CRYSTAL	ATS-3
Kenwood TM-721 Transceiver with Mirage/KLM Amplifier	130-150 MHz 430-460 MHz	F3/300W	SYNTHESIZED	Kenwood TM-721 Kenwood R-5000	130-150 MHz 0.1-30 MHz	15K00F2D 3K00J3E 6K00A3A 100HA1A	SYNTHESIZED VFO	ATS-3
Kenwood TH25	140-150 MHz	F3 / 3W	SYNTHESIZED	Kenwood TH25	140-150 MHz	F3	SYNTHESIZED	
ABA Transmit.	1.5-5.26 Hz	90K00G2W/50W	SYNTHESIZED	ICOM-735	0-30 MHz	4F4, 6A3B, 6A9B		
Kenwood TH45	440-450 MHz	F3 / 3W	SYNTHESIZED	Kenwood TH45	440-450 MHz	F3	SYNTHESIZED	
RITRON	450 MHz	F3 / 7W	CRYSTAL	RITRON	450 MHz	F3	CRYSTAL	

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ARLINGTON, VA 22230**COUNTRY** United States of America**ADDRESS FOR CORRESPONDENCE ON THIS INFORMATION:****STATION** Amundsen-Scott South Pole**CALL SIGN** NPX**LATITUDE** 60°S **LONGITUDE**

STATION WORKED	GMT		FREQUENCIES USED		CIRCUIT CONDUCT			REMARKS
	OPEN	CLOSE	TRANSMITTING	RECEIVING	TYPE OF EMISSION (See ccir 432) (X)	TYPE OF TRAFFIC	SX OR DX	
MCMURDO	OCT – MAR 24 hrs. daily MAR – OCT Daily less local Sunday		7340 7750 9073 10235 13551.5 15564	2650 4872 (Alt.) 5810 (Alt.) 6397 (Alt.) 8090 11004 17361.5	3K00J3E	ALL TELETYPE TRAFFIC, 74.2 BAUD (75 BAUD) 100 WPM 850 Hz SHIFT		
MCMURDO PALMER	OCT – MAR 24 hrs. daily MAR – OCT Daily less local Sunday		4770.0 7995.0 9032 11553.0	4770.0 7995.0 9032 11553.0	3K00J3E	VOICE - INTERSTATION		USB SUPPRES -SED CARRIER
MCMURDO PALMER	OCT – MAR 24 hrs. daily MAR – OCT as required		9032 13251.0 11255.0 4718.0 5826.0 6708.8	9032 13251.0 11255.0 4718.0 5826.0 6708.8	3K00J3E	VOICE - AIRCRAFT		USB SUPPRES -SED CARRIER
MCMURO PALMER	AS REQUIRED		2182 8364 3023 121.5 MHz 243.0 MHz 282.8 MHz	2182 8364 3023 121.5 MHz 243.0 MHz 282.8 MHz	3K00J3E 3K00J3E 3K00J3E 3K00J3E 3K00J3E 3K00J3E	DISTRESS AND CALLING/SEARCH AND RESCUE		USB USB USB AM AM AM
LOCAL AIR/GROUND	ON CALL ONLY OCT – FEB 15 TH		360.2 MHZ 134.1 MHZ	360.2 MHZ 134.1 MHZ	6K00A3E	VOICE (APPROACH CONTROLS – GCA)		

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 ARLINGTON, VA 22230

STATION Palmer
CALL SIGN NHG
LATITUDE 64°46'S **LONGITUDE** 64°05'W

TRANSMITTERS				RECEIVERS				REMARKS
TYPE	FREQUENCY BANDS	TYPES OF TRANSMISSION AND POWER	FREQUENCY SELECTION (CRYSTAL VFO, etc.)	TYPE	FREQUENCY BANDS	TYPES OF RECEPTION AVAILABLE	FREQUENCY SELECTION (CRYSTAL VFO, etc.)	
GX23205 STANDARD MARINE	156-162 MHz 55 CHANNEL	16K0F3E/25W	SYNTHESIZED	STANDARD MARINE	156-162 MHz 55 CHANNEL	16K0F3E	SYNTHESIZED	MONITOR Ch16 & 27
SUNAIR LINEAR AMP GSL-1900A	1.6-30 MHz	3K00J3E/1 KW		SUNAIR GSB-900DX TRANSCEIVER	1.6-3.0 MHz	3K00J3E 3K00J1D	SYNTHESIZED	AX.25
SUNAIR GSB-900DX TRANSCEIVER	1.6-30 MHz	3K00J3E, 3K00J1D 100W	SYNTHESIZED	ICOM R 70	0.1-30 MHz	3K00J3E	SYNTHESIZED	
MOTOROLA MSR- 2000	161.950 MHz	16F3/112W	CRYSTAL	MOTOROLA MSR-2000	157.350 MHz	16F3	CRYSTAL	CARRIER ACCESS REPEATER
MOTOROLA MICOR	149.195 MHz CH 2 149.163 MHz CH 6A 149.283 MHz CH 6B 149.245 MHz CH 4	16F3/375W	CRYSTAL	MOTOROLA MICOR	135.575 MHz CH 2 135.543 MHz CH 6A 135.663 MHz CH 6B 135.625 MHz CH 4	16F3	CRYSTAL	ATS-3
NERA Saturn Bm	1636.5 MHz 1645.0 MHz	F9	SYNTHESIZED	NERA Saturn Bm	1535.0 MHz to 1543.5 MHz	F9	SYNTHESIZED	INMARSAT TERMINAL
Univ. of Miami LES-9 Transceiver	303.350, 303.375, 303.450, 303.475 MHz	16F/20W	SYNTHESIZED	Univ. of Miami LES-9 Transceiver	249.550, 249.575, 249.650, 249.675 MHz	16F3	SYNTHESIZED	LES-9
Kenwood TS450S Transceiver	2-30 MHz	100H0A1A, 3K00J3E 100W	SYNTHESIZED	Kenwood TS450S	2-30 MHz	100H0A1A, 3K00J3E	SYNTHESIZED	Amateur Radio
Kenwood TS922A Linear Amplifier	2-30 MHz	100H0A1A, 3K00J3E 1KW	SYNTHESIZED					

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ANTENNA		FACSIMILE		TELEPRINTER		REMARKS	
TYPE	AZIMUTH (IN DEGREES OR OMNI)	INDEX OF COOPERATION	DRUM SPEED	TYPE	SPEED (bauds)		LIST OF AVAILABLE FREQUENCIES
SLOPING "V"	340					HF (long distance)	2-30 MHz
CONICAL MONOPOLE	OMNI					HF (local ops.)	2-30 MHz
J-POLE (2)	OMNI					VHF (local ops.)	155-163 Mhz
CROSS POLARIZATION YAGI	ATS-3 SATELLITE 3150					DUAL ARRAY VOICE TRANSMIT	149.195, 149.220, 149.245, 149.249 MHz
CROSS POLARIZATION YAGI	ATS-3 SATELLITE 3150					DUAL ARRAY VOICE RECEIVE	135.555, 135.575, 135.600, 135.625 MHz
CROSS POLARIZATION YAGI	LES-9 SATELLITE 3140					DUAL ARRAY DATA TRANSMIT	303MHz
CROSS POLARIZATION YAGI	LES-9 SATELLITE 3140					DUAL ARRAY DATA RECEIVE	249MHz
HF YAGI (TRI-BAND)	ROTATABLE					AMATEUR/MARS/HAM	14, 21, 28 MHz
PARABOLIC DISH	IMMARSAT SATELLITE					MARISAT, VOICE, DATA, TELEX	1.5-1.6 GHz
860' RHOMBIC	1950					HF primary, MCMURDO + POLE, VOICE + RATT	2-30 MHz design center = 11,553 kHz
COAXIAL	OMNI					VHF LOCAL AIR-GROUND	116-135 MHz
VHF MARINE WHIP	OMNI					VHF Marine Repeater Primary & Secondary for local boating ops.	155-163 MHz
5 ELEMENT COAXIAL	OMNI					VHF MARINE BASE	155-163 MHz

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TYPE	AZIMUTH (IN DEGREES OR OMNI)	INDEX OF COOPERATION	DRUM SPEED	TYPE	SPEED (bauds)		LIST OF AVAILABLE FREQUENCIES
ENCLOSED MONOPOLE	OMNI					NOAA ARGOS relay for J-275	401.650 MHz
ENCLOSED 1.2M STEERABLE DISH	STEERABLE					TERA SCAN WEATHER DATA RX FOR T-312 (Receive)	1689, 2252.2 MHz

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STATION WORKED	GMT		FREQUENCIES USED		CIRCUIT CONDUCT			REMARKS
	OPEN	CLOSE	TRANSMITTING	RECEIVING	TYPE OF EMISSION (See ccir 432) (X)	TYPE OF TRAFFIC	SX OR DX	
MCMURDO SOUTH POLE	DEC-- 1100 Dai- MAR-- 1100 Daily Satur-	-MAR 0000 ly --OCT 0000 less local day	4771.5 7996.5 (Primary) 11554.5 (Primary)	4771.5 7996.5 8975.5 11554.5	3A3J	VOICE - INTER-STATION		USB SUPPRES -SED CARRIER
MCMURDO SOUTH POLE	AS REQUIRED		9032 (Primary) 13252.5 (Second.) 11256.5 (Tertiary) 4719.5 (Alt. 5727.5 on 6709.5 call) 9034	9032 13252.5 11256.5 4719.5 5727.5 6709.5 9034	3A3J	VOICE - AIRCRAFT		USB SUPPRES -SED CARRIER
MCMURDO SOUTH POLE	AS REQUIRED		2182 8364 3023.5	2182 8364 3023.5	3A3J	DISTRESS AND CALLING/SEARCH AND RESCUE		USB
ROTHERA	1130 1730 2330 DAI	1135 1735 2335 LY	3186 (Second.) 4553 (Primary)	3186 4553	16F3 3A3J	WEATHER SYNOPTIC GROUPS		USB USB USB
COPACABANA, SEAL IS., CAPE SHERIFF	OCT- 0000 Z DAI	MAR 0030 Z LY	4125 (Primary) 4131 (Secondary)	4125 4131	3A3J	VOICE		USB