

ARIES WINGS CONSULTING



2014

Navigational Aids for DCS



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Operation of AN/ARN-83 ADF



1. Set the rotary switch [1] to position **ANT**. This let you receive audible beacon IDs on the tuned frequency. If no beacon frequency is tuned in for the moment you will hear white noise only.
2. Set the rotary switch [2] to the desired frequency band of the beacon of your selection. If your beacon is on 450 kHz you would set the band '400-850'.
3. With the tune button [3] set the frequency of the desired beacon. The frequency scale can be observed in the frequency window [5] . If you are 'on frequency' and in range of the beacon, you will notice silence suddenly and after a few seconds the Morse code is received. In parallel, you can observe the field strength [4] of the received signal.
4. Compare the received Morse code with that of the desired beacon. If the signals match, set the rotary switch [1] to '**ADF**'.
5. Now the RMI pointer moves into the direction of the beacon's location.

Since the ADF procedure provides no distance information, the only two methods to find your position is:

station passage

At the moment you pass the beacon location, you will see the RMI pointer moving fast into another direction. If you pass precisely the beacon location it will move to the opposite direction.



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Cross bearing

Write down the current bearing to the beacon tuned in. Now repeat the procedure to receive a another beacon closed by. Write down the new bearing. Take the navigational map and draw from the beacons a line in the direction of the reversed bearing (+ or - 180°). The cross point of the two lines on the map is your position.

Example:



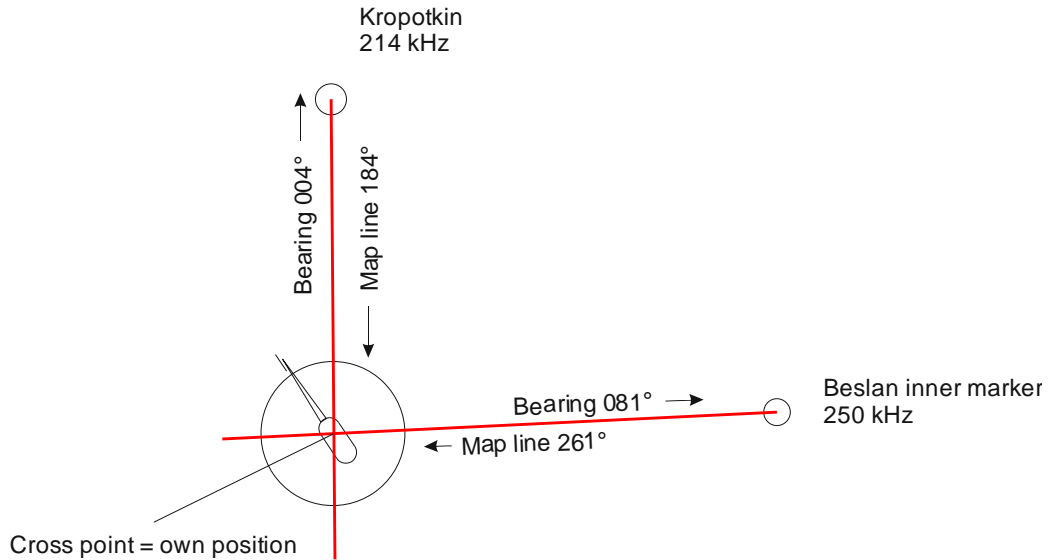
Bearing 1:

Ferquency: 214 kHz
ID: KP
Full Name Kroptokin



Bearing 2:

Ferquency: 250 kHz
ID: C
Full Name: Beslan inner Marker



List of NDB/VOR supported by DCS

Table lines colored in red are inactive beacons.

The content of this document must not be used for real world navigation!

Full Name	ID	Type	Latitude	Longitude	Frequency
Astrahan	AD	NDB	46° 21' 0.000"N	047° 52' 60.000"E	745.00 kHz
Agoj	AG	NDB	44° 07' 60.000"N	039° 02' 4.000"E	381.00 kHz
Alusta	AL	NDB	44° 40' 30.000"N	034° 23' 54.000"E	384.00 kHz
Ahilleonskij	AN	NDB	45° 26' 24.000"N	036° 51' 11.000"E	300.50 kHz
Mys Anapskij	AP	NDB	44° 52' 56.000"N	037° 18' 26.000"E	312.50 kHz
Mys Ajtodorskij	AT	NDB	44° 25' 49.000"N	034° 07' 22.000"E	312.50 kHz
Bagaevs kij	BA	NDB	47° 19' 0.000"N	040° 22' 0.000"E	1175.00 kHz
Berdansk	BD	NDB	46° 49' 0.000"N	036° 46' 0.000"E	342.00 kHz
Kalaus	BJ	NDB	43° 28' 0.000"N	045° 13' 0.000"E	735.00 kHz
Belosarajskij	BS	NDB	46° 52' 48.000"N	037° 20' 13.000"E	300.50 kHz
Belosarajskij	BT	NDB	41° 39' 22.000"N	041° 38' 27.000"E	297.50 kHz
Ali	BT	NDB	42° 05' 46.000"N	043° 38' 41.000"E	353.00 kHz
Arciz	BT	NDB	45° 57' 0.000"N	029° 22' 60.000"E	440.00 kHz
Betta	BT	NDB	44° 22' 15.000"N	038° 23' 5.000"E	795.00 kHz



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Gali	DA	NDB	42° 36' 0.000"N	041° 46' 60.000"E	525.00 kHz
Mys Doob	DB	NDB	00° 00' 0.000"N	000° 00' 0.000"E	312.50 kHz
Muhrani	DF	NDB	41° 55' 0.000"N	044° 33' 56.000"E	520.00 kHz
Dmitrovka	DM	NDB	45° 29' 22.000"N	035° 03' 31.000"E	690.00 kHz
Dobrusino	DO	NDB	45° 22' 41.000"N	033° 21' 42.000"E	1175.00 kHz
Bualyk	DV	NDB	46° 53' 60.000"N	030° 41' 60.000"E	625.00 kHz
Mys Fonar1	EN1	NDB	45° 22' 32.000"N	036° 38' 39.000"E	291.50 kHz
Mys Fonar2	EN2	NDB	45° 22' 49.000"N	036° 38' 23.000"E	300.50 kHz
Egorlykska	ER	NDB	46° 34' 60.000"N	040° 40' 0.000"E	435.00 kHz
Mys Evpatorijskij	EA	NDB	45° 08' 60.000"N	033° 16' 12.000"E	309.50 kHz
Henicskij	GE	NDB	46° 10' 57.000"N	034° 48' 58.000"E	300.50 kHz
Primorsko-Ahtarsk	GV	NDB	46° 02' 60.000"N	038° 13' 60.000"E	920.00 kHz
Herson-Cernobaevka	HS	NDB	46° 40' 0.000"N	032° 30' 0.000"E	1065.00 kHz
Il icevsk	IO	NDB	45° 00' 52.000"N	035° 25' 11.000"E	300.50 kHz
Alta	JL	NDB	44° 29' 6.000"N	034° 08' 12.000"E	274.00 kHz
Mys Kyz-Aul	KA	NDB	45° 03' 43.000"N	036° 22' 15.000"E	312.50 kHz
Kaca	KC	NDB	44° 45' 0.000"N	033° 34' 0.000"E	580.00 kHz
Kuznecovka	KC	NDB	47° 23' 60.000"N	040° 58' 0.000"E	602.00 kHz
Mys Kodoskij	KD	NDB	44° 06' 15.000"N	039° 02' 32.000"E	297.50 kHz
Limanskoe	KE	NDB	46° 40' 0.000"N	030° 00' 0.000"E	750.00 kHz
Kahovka	KH	NDB	46° 48' 30.000"N	033° 29' 48.000"E	485.00 kHz
Komissarovo	KM	NDB	46° 16' 0.000"N	035° 01' 0.000"E	950.00 kHz
Kropotkin	KP	NDB	45° 27' 0.000"N	040° 34' 0.000"E	214.00 kHz
Krasnyj	KS	NDB	47° 12' 0.000"N	040° 21' 0.000"E	1025.00 kHz
Stavropol-Spakovskoe	KT	NDB	45° 07' 18.000"N	042° 10' 54.000"E	730.00 kHz
Kislovodsk	KV	NDB	43° 56' 30.000"N	042° 38' 60.000"E	995.00 kHz
Kizlar	KZ	NDB	43° 49' 60.000"N	046° 43' 0.000"E	455.00 kHz
Lazarevskoe	LA	NDB	43° 55' 2.000"N	039° 20' 15.000"E	307.00 kHz
Lubimovka	LB	NDB	45° 37' 30.000"N	034° 53' 54.000"E	670.00 kHz
Nikolaev-Kulbakovo	LC	NDB	46° 55' 60.000"N	032° 06' 0.000"E	329.00 kHz
Krasnolese	LE	NDB	44° 49' 60.000"N	034° 15' 0.000"E	395.00 kHz
Mariupol	MA	NDB	47° 04' 60.000"N	037° 27' 0.000"E	770.00 kHz
Voznesensk	MN	NDB	47° 31' 0.000"N	031° 16' 0.000"E	380.00 kHz
Manycskij	MN	NDB	47° 02' 60.000"N	040° 22' 0.000"E	705.00 kHz
Berdanskij Niznij	NB	NDB	46° 38' 7.000"N	036° 45' 57.000"E	300.50 kHz
Bolsevik	ND	NDB	45° 46' 0.000"N	040° 13' 60.000"E	507.00 kHz
Melitopol	NE	NDB	46° 52' 0.000"N	035° 17' 60.000"E	740.00 kHz
Mikolaivka	NK	NDB	47° 05' 15.000"N	031° 58' 23.000"E	1030.00 kHz
Rostov-na-Donu centr	NZ	NDB	47° 16' 60.000"N	039° 37' 60.000"E	515.00 kHz
Ust-Labinsk	NZ	NDB	45° 13' 36.000"N	039° 39' 15.000"E	330.00 kHz
Odessa-Mys Bolsoj Fontan	OD	NDB	46° 22' 41.000"N	030° 44' 32.000"E	309.50 kHz
Odessa-Centralnyj	OD	NDB	46° 18' 23.000"N	030° 39' 40.000"E	348.00 kHz
Gori	OZ	NDB	42° 01' 0.000"N	044° 07' 56.000"E	462.00 kHz
Parutyne	PA	NDB	46° 41' 42.000"N	031° 54' 18.000"E	905.00 kHz
Prikaspijskij	PK	NDB	46° 13' 30.000"N	047° 12' 30.000"E	352.00 kHz



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Peredova	PR	NDB	44° 07' 0.000"N	041° 28' 0.000"E	1210.00 kHz
Potijskij	PT	NDB	42° 08' 5.000"N	041° 40' 38.000"E	942.00 kHz
Egrikska	SG	NDB	46° 52' 60.000"N	040° 40' 0.000"E	435.00 kHz
Ladozska	RF	NDB	45° 16' 60.000"N	039° 55' 0.000"E	324.00 kHz
Rostov-na-donu Vostocnyj	RN	NDB	47° 13' 30.000"N	039° 46' 12.000"E	320.00 kHz
Dzubga	RS	NDB	44° 19' 14.000"N	038° 42' 5.000"E	420.00 kHz
Elista	SA	NDB	46° 22' 24.000"N	044° 19' 60.000"E	311.00 kHz
Siraevo	SH	NDB	47° 24' 12.000"N	030° 16' 48.000"E	389.00 kHz
Socoj	SH	NDB	47° 06' 0.000"N	041° 21' 0.000"E	396.00 kHz
Suhoj	SH	NDB	47° 06' 0.000"N	041° 21' 0.000"E	862.00 kHz
Skadovsk	SK	NDB	46° 07' 60.000"N	032° 55' 0.000"E	680.00 kHz
Mys Suhumskij	SM	NDB	42° 59' 7.000"N	040° 58' 48.000"E	297.50 kHz
Picunda	PI	NDB	43° 10' 8.000"N	040° 20' 14.000"E	920.00 kHz
Smolenska	SM	NDB	44° 47' 15.000"N	038° 47' 47.000"E	662.00 kHz
Sultanskoe	SN	NDB	44° 35' 30.000"N	042° 40' 0.000"E	866.00 kHz
Sarmakovo	SR	NDB	43° 45' 0.000"N	043° 07' 0.000"E	907.00 kHz
Mys Hersenesskij	SV	NDB	44° 34' 54.000"N	033° 22' 60.000"E	309.50 kHz
Mahackala	TA	NDB	42° 58' 30.000"N	047° 31' 12.000"E	822.00 kHz
Tendorovskij	TD	NDB	46° 19' 7.000"N	031° 31' 22.000"E	309.50 kHz
Tiraspol	TH	NDB	46° 52' 0.000"N	029° 36' 0.000"E	515.00 kHz
Taganrog-Centr	TN	NDB	47° 15' 0.000"N	038° 49' 60.000"E	470.00 kHz
Cnori	TO	NDB	41° 37' 50.000"N	046° 00' 56.000"E	342.00 kHz
Teploreckskij	TP	NDB	44° 09' 18.000"N	043° 31' 60.000"E	1182.00 kHz
Mys Tarhankutskij	TR	NDB	45° 20' 48.000"N	032° 29' 20.000"E	309.50 kHz
Taganrog-Uznyj	UF	NDB	47° 12' 0.000"N	038° 51' 0.000"E	720.00 kHz
Tihoreck	UH	NDB	45° 49' 60.000"N	040° 04' 60.000"E	528.00 kHz
Zenzeli	UP	NDB	45° 55' 60.000"N	047° 04' 0.000"E	337.00 kHz
Mys Zeleznyj Rog	ZR	NDB	45° 06' 42.000"N	036° 44' 30.000"E	312.50 kHz
Gronzjy-Vostocnyj	VK	NDB	43° 22' 60.000"N	045° 42' 0.000"E	830.00 kHz
Armavir-Centr	VM	NDB	44° 58' 0.000"N	041° 07' 0.000"E	740.00 kHz
Voroncovskij Front-Odessa	VR	NDB	46° 29' 46.000"N	030° 43' 26.000"E	309.50 kHz
Veselyj	VS	NDB	47° 07' 0.000"N	040° 43' 0.000"E	641.00 kHz
Razanska	T	NDB	44° 58' 0.000"N	039° 34' 0.000"E	312.00 kHz
Biruca Kosa	YO	NDB	45° 43' 0.000"N	047° 36' 0.000"E	722.00 kHz
Majkop	MA	NDB	44° 37' 23.000"N	040° 08' 49.000"E	682.00 kHz
Kerc	KS	NDB	45° 22' 0.000"N	036° 23' 60.000"E	1050.00 kHz
Socinskij	SC	NDB	43° 34' 54.000"N	039° 43' 45.000"E	1116.00 kHz
Khersones	BF	NDB	44° 34' 36.000"N	033° 23' 55.000"E	935.00 kHz
Gelendzhik	GN	NDB	44° 33' 52.000"N	038° 00' 55.000"E	1000.00 kHz
Gelendzhik	GNV	VOR	44° 34' 21.000"N	038° 00' 44.000"E	114.300 MHz
Krasnodar_P	KRD	VOR	45° 01' 15.000"N	039° 09' 50.000"E	115.800 MHz
Batumi	LU	NDB	41° 36' 50.000"N	041° 36' 24.000"E	430.00 kHz
Kutaisi	TIG	NDB	42° 10' 27.400"N	042° 27' 16.000"E	477.00 kHz
Kutaisi	KTS	VOR	42° 10' 27.800"N	042° 27' 19.000"E	113.600 MHz
MinVody	MNV	VOR	44° 14' 22.000"N	043° 03' 15.000"E	117.100 MHz



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Lochini	TBS	VOR	41° 40' 14.000"N	044° 56' 49.000"E	113.700 MHz

All names used in the above table are free translations from Kyrillic to the western character set. It is likely, that the expected audible Morse code does not match the ID for a navigational aid. Frequencies and the Lat/Long locations are taken directly from the simulator system.