

MWARA

From The RadioReference Wiki

MWARA is the term for Major World Air Route Areas, which support HF Radio communications to aircraft outside of VHF range.

All frequencies listed are in KHz (USB mode). Groups of frequencies in one region are often referred to as 'families'.

For worldwide listing by families with maps, see the [Atlantic](#) page for the Atlantic routes, and for the Pacific, polar and Mexican routes see the [Pacific, Polar and Mexican](#) page from the Collins website. These pages also contain charts with up to date LDOC (Long Distance Operational Control) frequencies

□

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Atlantic Ocean

North Atlantic (NAT)

Complete NAT Numeric Listing

2860
2869
2872
2881
2890
2899
2944
2962
2965
2971
2992
3016
3446
3458
3473
3476
3488
3491
4651
4666
4675
4684
5460
5481
5484
5559
5568
5577
5583

5598
5616
5649
6547
6550
6556
6595
6622
6628
6667
8825
8831
8864
8879
8891
8906
8954
10021
10036
10066
11276
11279
11309
11336
11363
13291
13306
13354
17946
17952

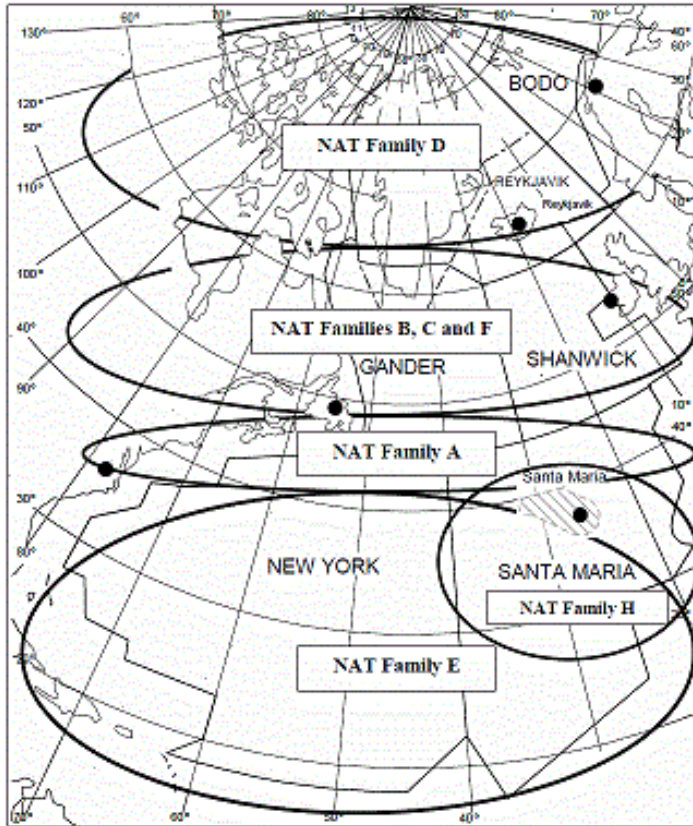


Figure 3 – NAT Family usage areas

NOTES:

NY Center only has NAT-A and NAT-E implemented. All frequencies for NAT *confirmed* as of November 2020.

For the latest NAT information please see this official IAA web page: [North Atlantic Communications Frequencies](#)

NAT-A

[Routes between 43N and 47N] [During OFF-PEAK hours, primary assignment for SOUTHERLY routes]

New York Radio, Gander Radio, Santa Maria Radio, Shanwick Radio

3016 5598 8906 11396 13306 17946 21925

NAT-B

[Routes between 47N and 64N] [Assignments to aircraft flying EASTBOUND or WESTBOUND tracks] [Primary for CENTRAL routes]

Gander Radio, Iceland Radio, Shanwick Radio

2899 5616 8864 13291

NAT-C

[Routes between 47N and 64N] [Assignments to aircraft flying EASTBOUND or WESTBOUND tracks] [Primary for CENTRAL routes]

Gander Radio, Iceland Radio, Shanwick Radio

2872 5649 8879 11336

NAT-D

[Routes north of 62N] [During OFF-PEAK hours, primary assignment for NORTHERLY routes]

Bodo Radio, Gander Radio, Iceland Radio, Shanwick Radio, Arctic Radio

2971 4675 8891 13291

NAT-E

[Routes between New York and Santa Maria, south of 43N] [Unguarded in OFF-PEAK hours]

New York Radio, Santa Maria Radio

2962 6628 8825 11309 13354 17952 21964

NAT-F

[Routes within Gander and Shanwick areas only]

Gander Radio, Shanwick Radio

3476 6622 8831 13291

NAT-H

[Routes assigned to aircraft flying entirely within Santa Maria area]

Santa Maria Radio

3491 6667 10021

NAT-I

Shanwick Radio

2890 6595

NAT-J

Shanwick Radio

3446 6547

RDARA (Regional and Domestic Air Route Area)

[Routes over land with no VHF coverage]

Region 1/1E

3491 5583 6667 10021 10036

Region 1B

2890 5484 5568 6550 6595

Region 1D

2989 5637

Region 10E

2944 3446 4651 5460 5481 5559 5577 6547

South Atlantic (SAT)

Complete SAT Numeric Listing

2854
3452
5565
6535
8861
11291
13315

13357
17955

SAT-1

Brasilia Radio, Canarias Radio, Cayenne Radio, Dakar Radio, Manaus Radio, Paramaribo Radio, Recife Radio, Rio de Janerio Radio, Sal Island Radio

3452 6535 8861 13357 17955

SAT-2

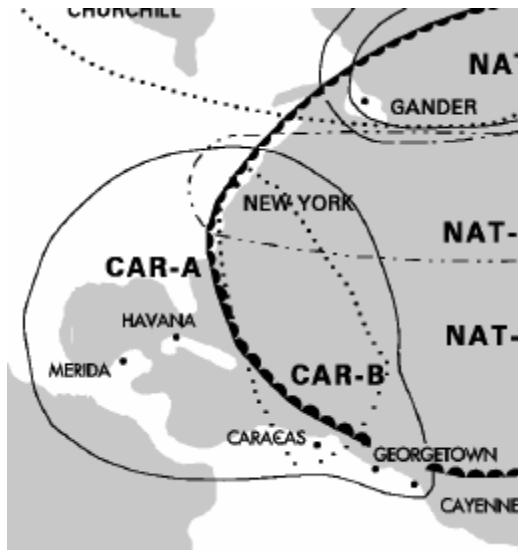
Canarias Radio, Cayenne Radio, Dakar Radio, Manaus Radio, Johannesburg Radio, Paramaribo Radio, Recife Radio, Rio de Janerio Radio, Sal Island Radio

2854 5565 11291 13315 17955

Caribbean Sea (CAR)

Complete CAR Numeric Listing

2887	CAR-A
3455	CAR-A
5520	CAR-B
5550	CAR-A
6577	CAR-A
6586	CAR-B
8846	CAR-A
8918	CAR-B
11330	CAR-B
11396	CAR-A
13297	CAR-B
17907	CAR-B
21985	CAR-B



CAR-A

New York Radio

2887 3455 5550 6577 8846 11396

CAR-B

New York Radio

5520 6586 8918 11330 13297 17907 21985

Pacific Ocean

Complete Pacific Numeric Listing

2869
2998
3413
3452
3467
4666
5547
5574
5628
5643
6532
6655
6673
8843
8867
8903

8915
8951
10048
10057
11282
11384
13261
13300
13339
13354
17904
17946
21925
21964
21985



Central East Pacific (CEP)

CEP-1

San Francisco Radio

3413 5574 8843 8915 13354

CEP-2 / CEP-3

San Francisco Radio

2869 3452 5547 6673 10057 11282 13288 21964

Central West Pacific (CWP)

CWP-1

San Francisco Radio, Tokyo Radio, Manila Radio

2998 3455 4666 6532 8903 11384 13300 17904

CWP-2

San Francisco, Guam, Tokyo

2998 5652 6532 8870 11384 13300 17904 21985

North Pacific (NP)

San Francisco Radio, Tokyo Radio

5628 6655 8951 10048 13339 17946 21925

South Pacific (SP)

San Francisco, Auckland, Brisbane, Nadi, Tahiti, Clipperton

3467 5643 8867 13261 17904

South Pacific LDOC - Long Distance Operational Control

- Used as alternates and for emergency messages in South Pacific

3007 6637 10072 13339 17940

Asia

East Asia (EA)

Beijing, Guangzhou, Pyongyang, Shanghai

3016 3485 3491 5655 5670 6571 8897 10042 11396 13297 13303 13309 17907

North Central Asia (NCA)

Magadan, Irkutsk, Khabarovsk, Petropavlovsk, Syktyvkar

2964 4712 6529 6544 6589 6631 6692 8837 11390

Southeast Asia (SEA)

SEA-1

Bombay Radio, Calcutta Radio, Colombo Radio

3470 5670 6556 10066 11285 13318 17907

SEA-2

Bangkok, Jakarta, Singapore, Tokyo

3485 5649 5655 8942 11396 13309 17907

SEA-3

Brisbane, Jakarta, Singapore

3470 6556 11396 13318 17907

Polar

Aircraft on Polar Route can contact SFO ARINC on their LDOC frequencies through Barrow, Alaska remote site

Indian Ocean (INO)

Bombay Radio, Colombo Radio

3476 5634 8879 13306 17961

Related Wikis and Links

- [Aircraft](#)
- [HF Aeronautical Communications](#)
- [VOLMET](#) - HF Aviation weathercasts
- [Flying the North Atlantic Tracks](#)

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