

**8<sup>th</sup> ARHC MEETING**  
**Longyearbyen, Svalbard, Norway 11-13 September 2018**

**Paper for Consideration by the 8<sup>th</sup> Meeting of the Arctic Regional Hydrographic Commission**  
**Progress on the Resolution of Overlapping ENC Coverage**  
**in the Bering and Chukchi Seas**

<b>Submitted by:</b>	United States (NOAA)
<b>Executive Summary:</b>	The United States and the Russian Federation have made significant progress in reducing overlapping ENC coverage in the Bering and Chukchi Seas. There is only one area where overlapping coverage within the same usage band still exists.
<b>Related Documents:</b>	None
<b>Related Projects:</b>	None

### Introduction / Background

In the past few years, the United States and the Russian Federation have made significant progress in reducing overlapping ENC coverage in the Bering and Chukchi Seas. Both countries have now adjusted the limits of their ENC coverage to eliminate almost all of the overlapping coverage within any single usage band.

### Analysis / Discussion

For some time there had been overlapping ENC coverage in the Bering and Chukchi Seas. Recent releases and planned releases of new ENC cells in this area will resolve almost all the overlapping ENC issues. The table below summarizes the status of the relevant ENC cells. The attached graphics show existing US and Russian Federation ENC coverage in this area.

Band	ENC Cells	Scale	Status
1	-		No overlapping coverage within band 1.
2	RU2OQ091	700 000	Already adjusted – no overlap, except for RU2MRYI1. Overlap will be resolved with release of US2AK7XM.
	RU2O9091	700 000	
	RU2NI001	700 000	
	RU2NGZ9	700 000	
	RU2MRYI1	700 000	
	RU2MRXR0	700 000	
	US2AKCGD	640 000	Already adjusted – no overlap.
	US2AK92M	700 000	
US2AK95M	1 534 076		
	US2AK7XM	1 126 321	Newly adjusted cell planned for September 2018 release.
3	RU3OE090	180 000	These two cells will still overlap the adjusted US coverage.
	RU3O90B9	180 000	
	US3AK89M	315 350	Newly adjusted cell planned for September 2018 release.
4	RU4OH180	22 000	Already adjusted. Overlap will be resolved with release of US4AK8DM.
	US4AK8DM	100 000	Newly adjusted cell planned for September 2018 release.
5	US5AK8DM	40 000	No overlap exists, but a newly adjusted cell is planned for September 2018 release to avoid the possibility of future overlaps.
6	-		No overlapping coverage within band 6.

There are two matters where additional work remains to be done.

Two Russian Federation ENC cells and one US ENC cell still overlap in usage band 3. The US is releasing a replacement for its overlapping cell in September 2018. This will eliminate the overlapping coverage if the Russian Federation makes a similar adjustment to its two cells.

There is currently no overlapping band 1 US/RU coverage, because there are no Russian Federation band 1 ENCs in this area. However, the current US band 1 coverage extends significantly west of Little Diomedede, Saint Lawrence, and Attu Islands. If the Russian Federation were to create band 1 ENCs in the Bering or Chukchi Seas there would be a substantial area of overlapping coverage.

The US is in the early stages of rescheming its entire ENC suite. When the Alaska band one ENC coverage is transformed to a set of regular, gridded ENC cells, the western limits of the cells will be adjusted to avoid the possibility of any future overlapping coverage.

### **Conclusions**

The United States and the Russian Federation have made significant progress in reducing overlapping ENC coverage in the Bering and Chukchi Seas. There are only three overlapping ENC band 3 cells that overlap. Eliminating this potentially dangerous overlapping coverage from Saint Lawrence Island to the Bering Strait should be a priority.

### **Recommendations**

The United States and the Russian Federation should continue their work to eliminate existing overlapping ENC coverage and take appropriate actions to reduce the possibility of future overlaps.

### **Action required of ARHC**

The ARHC is invited to note the report.

165°E

180°

165°W

150°W

# Russian Federation and United States Electronic Navigational Chart Coverage in the Bering and Chukchi Seas

## ENC Coverage

- RU Band 2
- US Band 2

70°N

70°N

60°N

60°N

50°N

50°N

RU2OPY10  
700000

RU2OQZ90  
700000

RU2OQ009  
700000

RU2OQ091  
700000

US2ARCGD  
640000

US2AK91M  
700000

US2AK92M  
700000

RU2O9Z90  
700000

RU2O9001  
700000

RU2O9091  
700000

Russian Federation

United States

RU2NI001  
700000

US2AK95M  
1534076

RU2NIY10  
700000

RU2NGZ91  
700000

US2AK20M  
969761

RU2MRY11  
700000

US2AK5FM  
1023188

RU2MRXR0  
700000

US2AK7XM  
1126321

US2AK70M  
1126321

US2AK95M  
1534076

US2AK30M  
969756

RU2M6Y10  
700000

August 2018

Labels show ENC cell name and scale.

165°E

180°

165°W

150°W

165°E

180°

165°W

150°W

# Russian Federation and United States Electronic Navigational Chart Coverage in the Bering and Chukchi Seas

## ENC Coverage

- RU Band 3
- US Band 3

70°N

70°N

60°N

60°N

50°N

50°N

Russian Federation

United States

- RU30SYB0 180000
- RU30QYN0 180000
- RU30RZ60 180000
- RU30OZ00 180000
- RU30O0T0 180000
- RU30O0P0 180000
- RU30O070 180000
- RU30J0M0 180000
- RU30H0B0 180000
- RU30C0T9 180000
- RU30B0L0 180000
- RU3090B9 180000
- RU308ZM0 180000
- RU3050T9 180000
- RU304ZF0 180000
- RU300Z70 180000
- RU301Y69 180000
- RU3NRZ00 180000
- RU3NRYK0 180000
- RU3NHY50 180000
- RU3NEY40 180000
- RU3NCYB9 180000

- US3AK80M 350000
- US3AK89M 315350
- US3AK83M 300000
- US3AK95M 350000
- US3AK84M 200000
- US3AK8CM 200000
- US3AK61M 300000
- US3AK50M 300000
- US3AK60M 300000
- US3AK71M 300000
- US3AK7BM 300000
- US3AK7GM 300000
- US3AK7RM 300000
- US3AK7WM 300000
- US3AK7RM 300000
- US3AK5KM 350000
- US3AK12M 200000
- US3AK2DM 200000
- US3AK1DM 194154
- US3AK21M 200000
- US3AK2HM 200000

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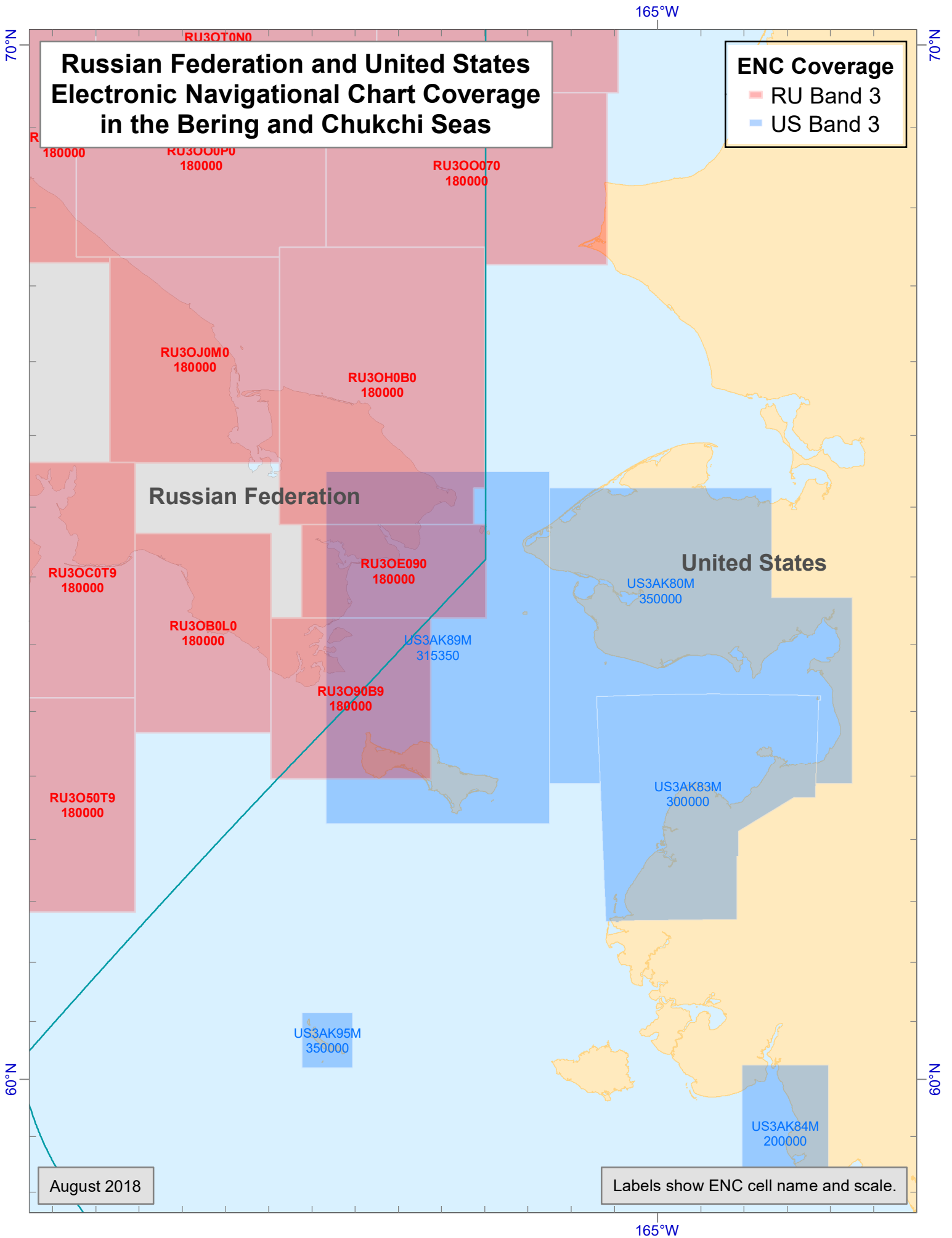
Labels show ENC cell name and scale.

165°E

180°

165°W

150°W



165°E

180°

165°W

150°W

# Russian Federation and United States Electronic Navigational Chart Coverage in the Bering and Chukchi Seas

## ENC Coverage

RU Band 4

US Band 4

70°N

70°N

Russian Federation

United States

60°N

60°N

50°N

50°N

August 2018

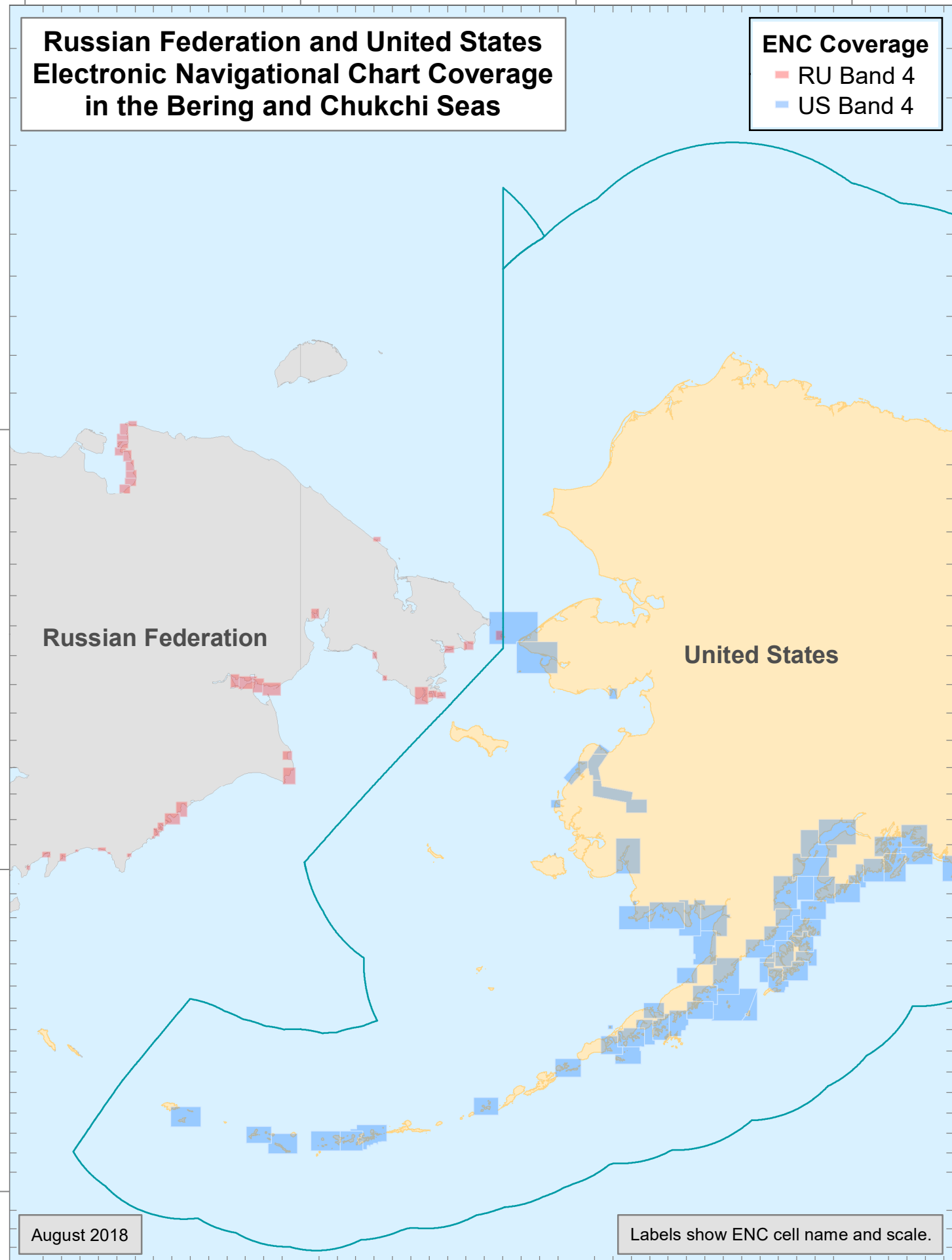
Labels show ENC cell name and scale.

165°E

180°

165°W

150°W

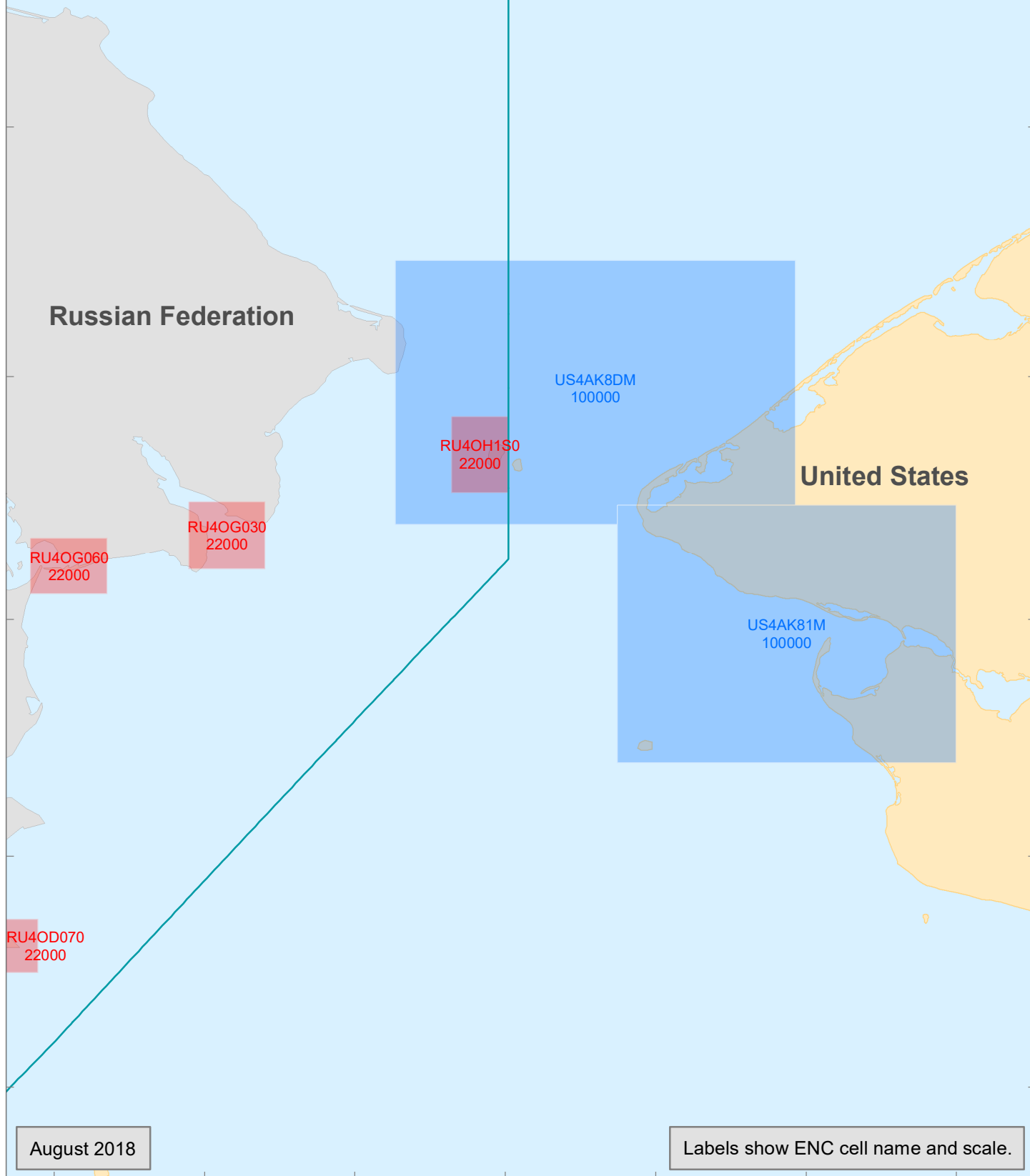


# Russian Federation and United States Electronic Navigational Chart Coverage in the Bering and Chukchi Seas

## ENC Coverage

RU Band 4

US Band 4



165°E

180°

165°W

150°W

# Russian Federation and United States Electronic Navigational Chart Coverage in the Bering and Chukchi Seas

## ENC Coverage

- RU Band 5
- US Band 5

70°N

70°N

Russian Federation

United States

60°N

60°N

50°N

50°N

August 2018

Labels show ENC cell name and scale.

165°E

180°

165°W

150°W





# Russian Federation and United States Electronic Navigational Chart Coverage in the Bering and Chukchi Seas

## ENC Coverage

RU Band 5

US Band 5

