

Interim Update to the AN/UPX-41(C) Spectrum Certification Conditions

SPS-18778/I

Miles Bellman, Volpe
Thomas Pagano, Regulus
Vaibhav Shah, Volpe

November 2015

DOT-VNTSC-NAVSEA-15-02

Prepared for:

Department of the Navy
Naval Sea Systems Command (NAVSEA)
Program Executive Office (PEO)
Integrated Warfare Systems (IWS)
Washington Navy Yard, DC 20376

Department of Transportation
Federal Aviation Administration (FAA)
Spectrum Engineering Services, AJW-1C
Washington, DC 20591



Notice

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for the contents or use thereof.

The United States Government does not endorse products or manufacturers. Trade or manufacturers' names appear herein solely because they are considered essential to the objective of this report.

REPORT DOCUMENTATION PAGE			<i>Form Approved</i> <i>OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE November 2015		3. REPORT TYPE AND DATES COVERED
4. TITLE AND SUBTITLE Interim Update to the AN/UPX-41(C) Spectrum Certification Conditions (SPS-18778/1)			5a. FUNDING NUMBERS 51FB15B100 NLL47 51VHF3A100 NJ1V8	
6. AUTHOR(S) Miles Bellman, Volpe; Thomas Pagano, Regulus; Vaibhav Shah, Volpe			5b. CONTRACT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Department of Transportation John A Volpe National Transportation Systems Center 55 Broadway Cambridge, MA 02142-1093			8. PERFORMING ORGANIZATION REPORT NUMBER DOT-VNTSC-NAVSEA-15-02	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Department of the Navy Naval Sea Systems Command (NAVSEA) Program Executive Office (PEO) Integrated Warfare Systems (IWS) Washington Navy Yard, DC 20376			10. SPONSORING/MONITORING AGENCY REPORT NUMBER US Department of Transportation Federal Aviation Administration (FAA) Spectrum Engineering Services, AJW-1C 800 Independence Ave., SW Washington, DC 20591	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION/AVAILABILITY STATEMENT This document is available to the public on the Volpe website at http://www.ntl.bts.gov .			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) In 2012, the Navy requested spectrum certification for the shipboard AN/UPX-41(C) Digital Interrogator System, Software Version 5.5 with Mode 5. Current operating conditions for the Navy's AN/UPX-41(C) are the same as restrictions imposed on the AN/UPX-37 digital Identification Friend or Foe (IFF) interrogator. A proposed AN/UPX-41(C) Stage 4 certification was developed to allow the Navy to operate under less restrictive parameters but required that the Navy and FAA validate those proposed restrictions. In October 2015, the report, DOT-VNTSC-NAVSEA-15-01, was released and detailed the results of the validation effort. Using the information from the validation effort, a more appropriate set of restrictions were developed to specify limits on AN/UPX-41(C) shipborne interrogator activity within 100 nmi of the coastline of the United States and its Possessions (US&P). This document details the rationale behind the new restrictions and gives the new shipborne interrogator geometry relative to the coastline in both a generic and operational manner.				
14. SUBJECT TERMS AN/UPX-41(C), Identification Friend or Foe, IFF, Aeronautical Surveillance and Collision Avoidance Systems, ASCAS, Secondary Surveillance Radar, SSR, Multilateration, MLAT, Traffic Collision Avoidance System, TCAS, ACAS, Automatic Dependent Surveillance – Broadcast, ADS-B, Interference simulation, 1030 MHz, 1090 MHz			15. NUMBER OF PAGES 81	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unlimited	

This page intentionally left blank.

Introduction

Spectrum certification for operation of shipboard AN/UPX-41(C) interrogators provides draft restrictions that are under examination. As a result of recent activities and analysis, updates that ease some aspects of those restrictions are contained herein. Data collected from August 2014 flight tests, which provide actual measurements of 1030 and 1090 MHz spectrum activity due to operation of AN/UPX-41(C) interrogators, has substantiated performance estimates and provided confidence in the ability to estimate their spectrum impact. However, this is an interim proposal since, at this time, there is not sufficient data and analysis to determine overall safe operating limits for transponder occupancy and 1090 MHz FRUIT rates. Ultimately, spectrum restrictions for operation of this equipment can be revisited as part of the Identification Friend or Foe (IFF) Technical Working Group (TWG), which will develop a process that can be used as an overall spectrum allocation and management scheme.

The following sections detail the rationale behind the new restrictions and gives their geographic implementation in a generic manner. The appendix shows the same restrictions as they would be implemented relative to Navy operational areas within 100 nmi of the coastline of the United States and its Possessions (US&P).

Factors on Performance

Performance of interrogators in the NAS is dependent on two components of the system: the operation of the 1030 MHz uplink and the 1090 MHz downlink. The performance of the 1030 MHz uplink is influenced by the overall 1030 MHz signal activity, as seen by a victim transponder. Multiple interrogators competing for transponder responses to support surveillance can lead to reduced performance as interrogation signals can overlap and become undecodable by the intended transponder. Additionally, transponders can become occupied and unable to respond to another transmitted interrogation when busy processing the first interrogation. The transponder must be in an available state to process and reply to an interrogation; therefore, transponder occupancy must be considered to prevent performance degradation. The performance of the 1090 MHz downlink is influenced by the overall 1090 MHz activity (or FRUIT), which is generated by the reply and broadcast activity of transponders within the surveillance range of the interrogator. Sometimes the 1090 MHz desired replies are overlapped with other undesired replies (FRUIT) due to their proximity to each other, as well as their relative positions to the interrogator. Signal overlaps on 1090 MHz desired replies can prevent proper detection and decode at the interrogator. Both 1030 MHz uplink and 1090 MHz reliability together influence victim interrogator detection performance.

Note: A third interference mechanism is synchronous interference that results in false targets. For the purpose of this work, it is assumed that the pulse repetition intervals of the interrogators

are sufficiently separated and/or staggering of the pulse repetition intervals is provided to preclude harmful synchronous interference.

When determining the supportability of the operation of an added interrogator in the NAS, there are two key aspects of spectrum impact to consider, 1030 MHz interrogation impact on transponder availability and 1090 MHz replies produced. The first impact is on transponder occupancy, which is a result of the 1030 MHz interrogation activity. The interrogation signal above a transponder's receiver threshold can do one of three things to the victim transponder: 1) desensitize the transponder, 2) suppress the transponder to ATCRBS interrogations and 3) cause a reply and receiver recovery interval following the reply. Interrogations that require a reply (item 3), result in the longest time interval of transponder occupancy. Transponder occupancy is a metric that captures the extent that an added interrogator influences the 1030 MHz uplink reliability. As mentioned previously, it must be considered in overall operation of the NAS since an interrogator's ability to perform adequate surveillance is influenced by its ability to receive replies to its interrogations. The second impact is the 1090 MHz reply activity generated by the interrogator. The 1090 MHz FRUIT can overlap desired replies and can prevent 1090 MHz receivers (e.g., SSRs, ADS-B, TCAS, MLAT) from successfully decoding desired signals.

AN/UPX-41(C) Analysis

Data collected from the August 2014 flight tests as well as documented specifications can be used to estimate the AN/UPX-41(C) interrogator's impact. There is not sufficient data and analysis at this time for the aggregate interference environment to suggest overall safe operating limits for transponder occupancy and 1090 MHz FRUIT rates with respect to their impact on surveillance system performance. Referring to existing guidance and assumptions from the TCAS MOPS (DO-185B), TCAS assumes an overall transponder occupancy allocation of 5% for ground SSR activity (DO-185B, §2.2.1.2.3.2, current environment includes SSR and MLAT) and 1% for onboard mutual suppression (DO-185B, §2.2.3.6.1). The occupancy of a victim transponder due to all nearby TCAS interrogations was limited to 2% (DO-185B, §2.2.1.2.3.2). Although not stated directly in DO-185B, an additional safety margin of 2% was provided for operation of future surveillance systems. Until additional data and analysis is completed, an average overall ATCRBS occupancy of 10% from all sources (see Table 1 below) is a conservative limit for Low/Medium Aircraft Density Areas (Note: In High Aircraft Density Areas, measurements have shown over 10% peak transponder occupancy attributed to just TCAS operations).

Table 1. Average Overall ATCRBS Occupancy Limit

System	Transponder Occupancy
SSR and MLAT	5%
TCAS	2%
Mutual Suppression	1%
Safety Margin	2%
Total	10%

AN/UPX-41(C)'s Impact on Transponder Occupancy

When analyzing transponder occupancy, reasonable margins for AN/UPX-41(C) operation can be based on protecting the geographic area around any cluster of operating shipborne interrogators. The worst-case impact to victim transponder occupancy (and a key factor in supporting changes to operating conditions) is within the sidelobe range of the interrogator. With the interrogation characteristics measured, the nominal range within which a victim transponder would see all of the sidelobe interrogations is about 5 nmi. Within this range, approximately 1% transponder occupancy would be experienced from a single interrogator.

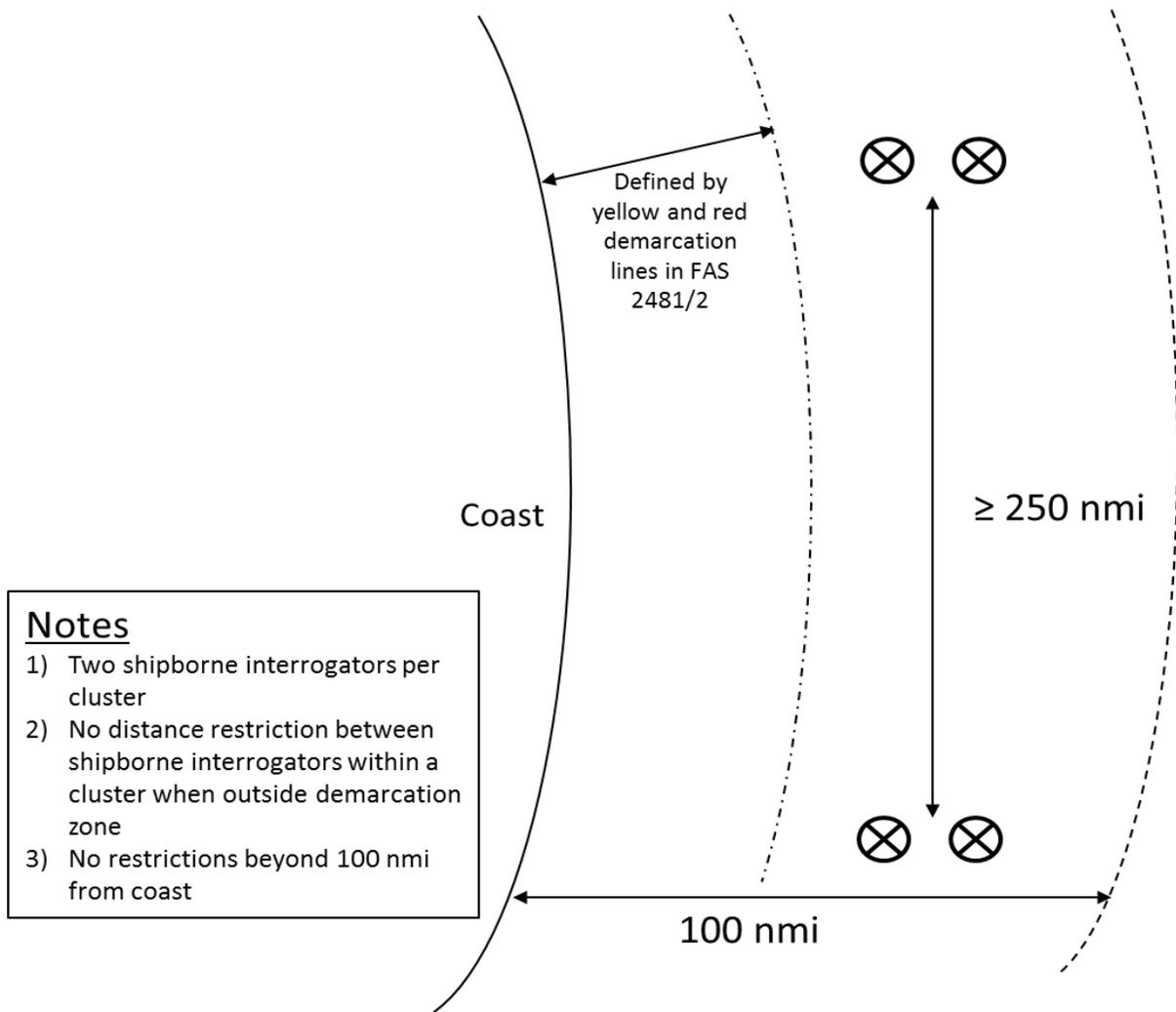
AN/UPX-41(C)'s FRUIT Impact

The 1090 MHz ATCRBS FRUIT was another key factor when considering relaxation criteria. The AN/UPX-41(C) has a 250 PRF and half of the interrogations are civil Mode 3/A and C interrogations; however, the amount of ATCRBS FRUIT is dependent on the aircraft density. The 1090 MHz Risk Mitigation Alternatives Analysis has predicted that ADS-B will not meet its performance objectives in the 2020 high aircraft density baseline environment. Given that the High Aircraft Density Areas are already saturated with FRUIT levels that degrade ADS-B performance to an unacceptable level, no change in AN/UPX-41(C) operating conditions could be considered for these areas, except during off-peak times of day. However, Low/Medium Aircraft Density Areas can accommodate additional ATCRBS FRUIT without degrading ADS-B performance to unacceptable levels. Measurements in the area of the August 2014 flight tests showed an average 500 ATCRBS FRUIT per second increase based on about 40 aircraft within the victim aircraft receiver's 60 nmi range with four AN/UPX-41(C) interrogators operating. Even at the maximum aircraft count of 200, at 60 nmi from a victim aircraft receiver, for a Medium Aircraft Density Area, 2000 ATCRBS FRUIT per second due to four AN/UPX-41(C) interrogators is supportable.

Proposed Relaxation

The proposed relaxation uses reference locations derived from the demarcation lines in the existing AN/UPX-37 Agreement (FAS 2481/2) (see Appendix A for discussion of demarcation

lines) as well as areas that are defined in SPS-18778/1 Stage 4 AN/UPX-41(C) Digital Interrogator System, S/W V5.5, with Mode 5 (shipboard), Section 3. The existing AN/UPX-37 Agreement is represented in Figure 1. The areas defined by Recommendation 5 in the Stage 4 AN/UPX-41(C) Section 3 recommendations include 50 nmi areas from the center of FAA-designated High Aircraft Density Areas as provided in SPS-18692/1 and 30 nmi from the center of FAA-designated Low/Medium Aircraft Density Areas as provided in SPS-18692/1. The areas defined by Recommendation 5 within those 30 and 50 nmi limits continue to be restricted areas (herein referred to as Low/Medium or High Restriction Zones) where no shipborne interrogators are permitted to operate except in certain areas during off-hours as provided below. For the purposes of this proposed relaxation, the regions defined by the edge of Low/Medium or High Restricted Zones to the existing AN/UPX-37 Agreement-derived demarcation lines are Protection Zones. A Protection Zone adjacent to High Restriction Areas, which is denoted with red lines, is a High Protection Zone and the region adjacent to the Low/Medium Restriction Zones, denoted by yellow lines, is a Low/Medium Protection Zone. Note that in situations where High and Low/Medium Restriction or Protection Zones overlap, the more restrictive scenario takes precedent. For example, while ACY is designated as a Medium Protection Zone, the High Protection Zones of PHL and JFK overlap the ACY zone, so ship cluster separations in the vicinity of ACY will be defined according to the provisions given below for operation in High Aircraft Density Areas. These rules for these types of special cases will be clearly prescribed in the operating tables referenced to specific airports.



- Notes**
- 1) Two shipborne interrogators per cluster
 - 2) No distance restriction between shipborne interrogators within a cluster when outside demarcation zone
 - 3) No restrictions beyond 100 nmi from coast

Figure 1. Existing AN/UPX-37 Agreement (FAS 2481/2)

Operation in Low/Medium Protection Zones (06:00-21:00 local time)

Limiting the maximum transponder occupancy due to AN/UPX-41(C) interrogators within a Low/Medium Protection Zone to 1% (sidelobe impact) is a reasonable approach that justifies allowing a single AN/UPX-41(C) interrogator to operate. Up to four AN/UPX-41(C) shipborne interrogators could be permitted to operate in the Low/Medium Protection Zone (06:00-21:00 time of day), if they are no closer than 15 nmi from each other to avoid sidelobe suppression area overlap (as shown in Figure 2). No shipborne interrogators may operate in the Low/Medium Restriction Zone.

Based on the specifications of the AN/UPX-41(C) transmit characteristics as well as the flight test data collection validation, the 250 nmi separation requirement defined in the Stage 4 certification between groups of four or fewer shipborne interrogators operating in a geographic area can also be reduced to 100 nmi if no shipborne interrogators are operating within an adjacent High Density Protection Zone¹. At 100 nmi, transponder occupancy is not the driving factor and instead ATCRBS FRUIT becomes the key factor in determining supportability. ATCRBS FRUIT increases as ship clusters are moved from being separated by 250 nmi down to 100 nmi, but not significantly to be a concern in Low/Medium Aircraft Density Areas.

Note that High Protection Zones take precedent over Low/Medium Protection Zones when determining separation of ship clusters. For example, while ACY is designated as a Medium Protection Zone, the High Protection Zones of PHL and JFK overlap the ACY zone, so ship cluster separations in the vicinity of ACY will be defined according to the provisions given for operation in High Aircraft Density Areas during the 06:00 to 00:00 timeframe.

¹ To be clear, any shipborne interrogator cluster in High Aircraft Density Airspace must be 250 nmi from the next cluster regardless of the type of Protected Zone that the next cluster is in.

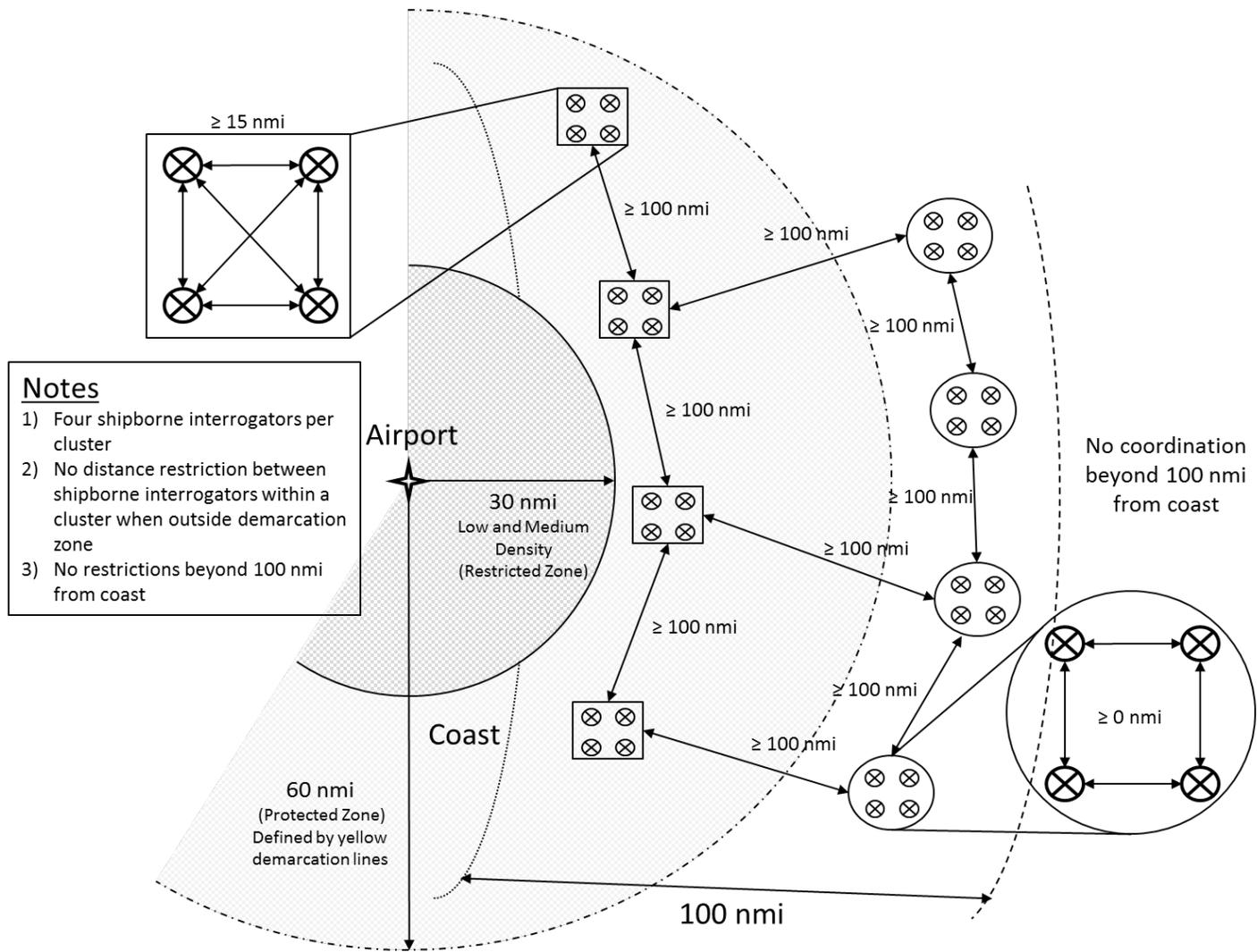


Figure 2. Operation in Low/Medium Aircraft Density Areas (06:00-21:00)

Operation in High Protection Zones (06:00-00:00 local time)

Permitting AN/UPX-41(C) interrogators within a High Protection Zone to a 1% transponder occupancy impact (sidelobe impact) allows a single AN/UPX-41(C) interrogator to operate with 15 nmi distance separation as defined in the Low/Medium Protection Zone. Up to four AN/UPX-41(C) shipborne interrogators could be permitted to operate in the High Protection Zone (06:00-00:00 time of day), if they are no closer than 15 nmi from each other to avoid sidelobe suppression area overlap (as shown in Figure 3). No shipborne interrogators may operate in the High Restriction Zone.

The 250 nmi separation continues to apply if any shipborne interrogator is in a High Protection Zone. Limiting ATCRBS FRUIT in this area is required to minimize increase in overall FRUIT in the High Aircraft Density Areas. These areas have already been shown in the 1090 MHz Risk Mitigation Alternatives Analysis to have limited margin for increased FRUIT to support ADS-B airborne applications in the future.

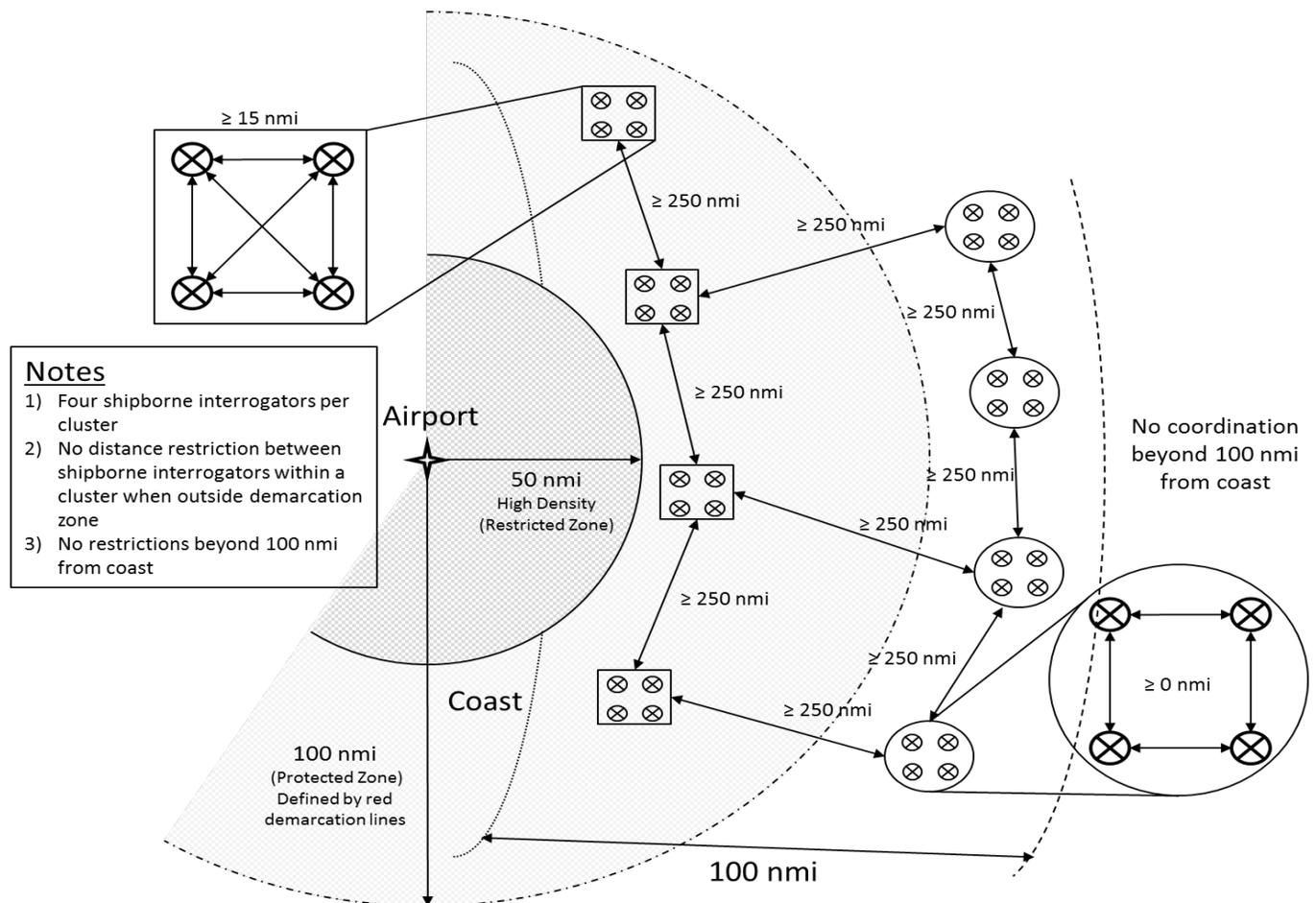


Figure 3. Operation in High Aircraft Density Areas (06:00-00:00)

Off-hour Operation in Low/Medium Protection Zones (21:00-06:00 local time)

Since air traffic operation during off-hour operation is extremely low, there is additional margin for AN/UPX-41(C) operation. The Low/Medium Protection Zones and the Low/Medium Restriction Areas no longer apply and there is no longer a need to require AN/UPX-41(C) interrogators to be separated by 15 nmi. Four AN/UPX-41(C) shipborne interrogators operating (without the 15 nmi minimum separations between shipborne interrogators) with a reduced minimum separation distance (100 nmi separation down to 25 nmi) between the next group of up to 4 shipborne interrogators can be supported, since reduced traffic counts significantly minimize the impact of the increased number of AN/UPX-41(C) interrogators operating (see Figure 4). Additionally, the 25 nmi separation between clusters limits the increase in transponder occupancy in any one area. Off-hours in this defined region from the coast are considered to be the interval between 21:00 and 06:00.

Note that High Protection Zones take precedent over Low/Medium Protection Zones when determining separation of ship clusters. For example, while ACY is designated as a Medium Protection Zone, the High Protection Zones of PHL and JFK overlap the ACY zone, so ship cluster separations in the vicinity of ACY will be defined according to the provisions given for operation in High Aircraft Density Areas during the 00:00 to 06:00 timeframe.

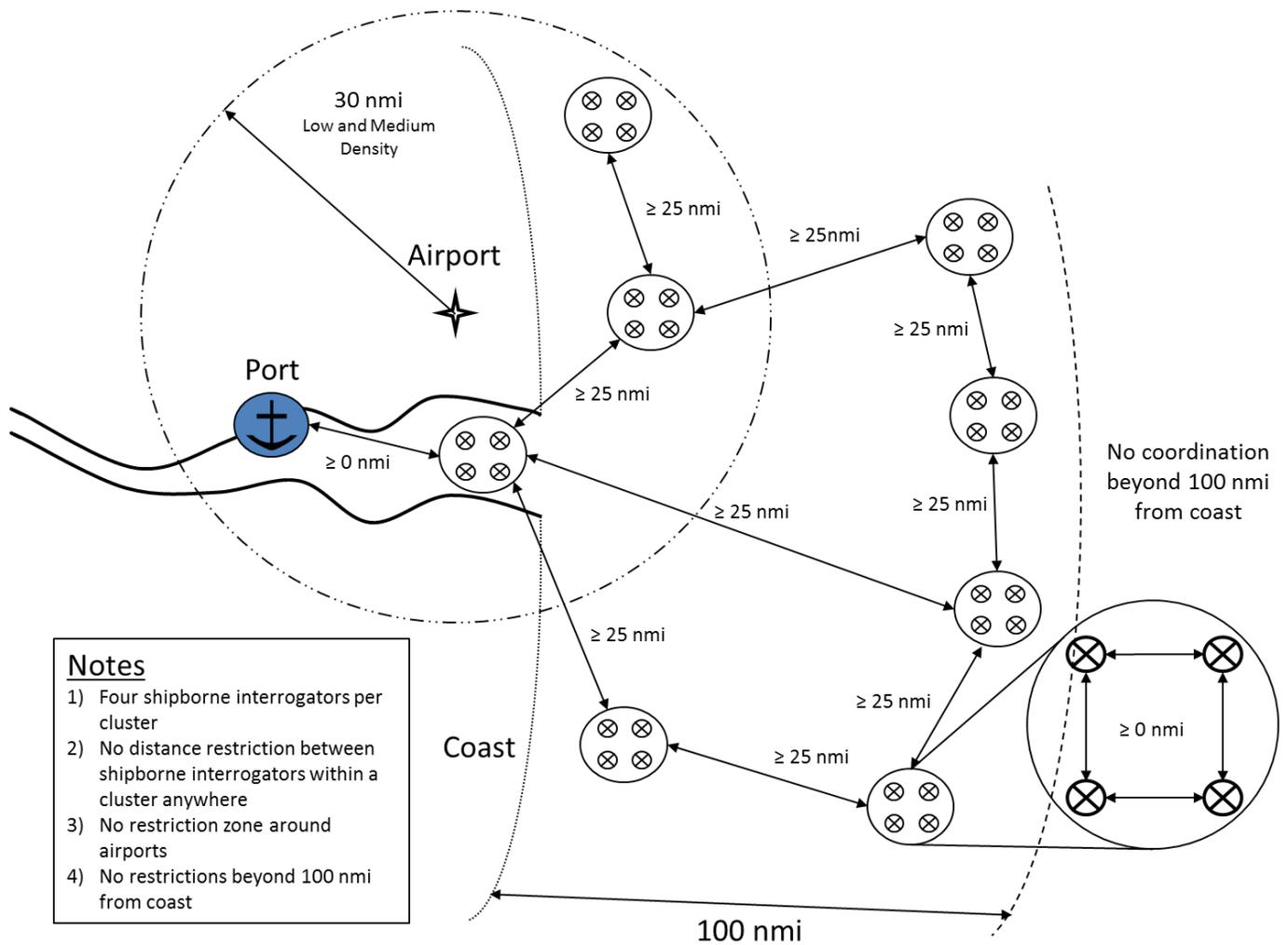


Figure 4. Off-hour Operation in Low/Medium Aircraft Density Areas (21:00-06:00)

Off-hours Operation in High Protection Zones (00:00-06:00 local time)

Since air traffic operation during off-hours is low in High Aircraft Density Areas, there is additional margin near these areas for more flexibility to support AN/UPX-41(C) interrogator operations. A single shipborne interrogator operating in High Protection Zones can be supported because the FRUIT levels in this scenario are similar (not equivalent) to that of the daytime operations in Low/ Medium Aircraft Density Areas with low traffic. Three additional shipborne interrogators can operate within this region as well except they can be no closer than 15 nmi to any other ship (see Figure 5). Off-hours in High Protection Zones is defined as the interval between 00:00 and 06:00. The next closest shipborne interrogator within the High Protection Zone must follow the 100 nmi cluster separation rule applicable to Low/Medium Protection Zones during the day. No shipborne interrogators may operate in the High Restriction Zone.

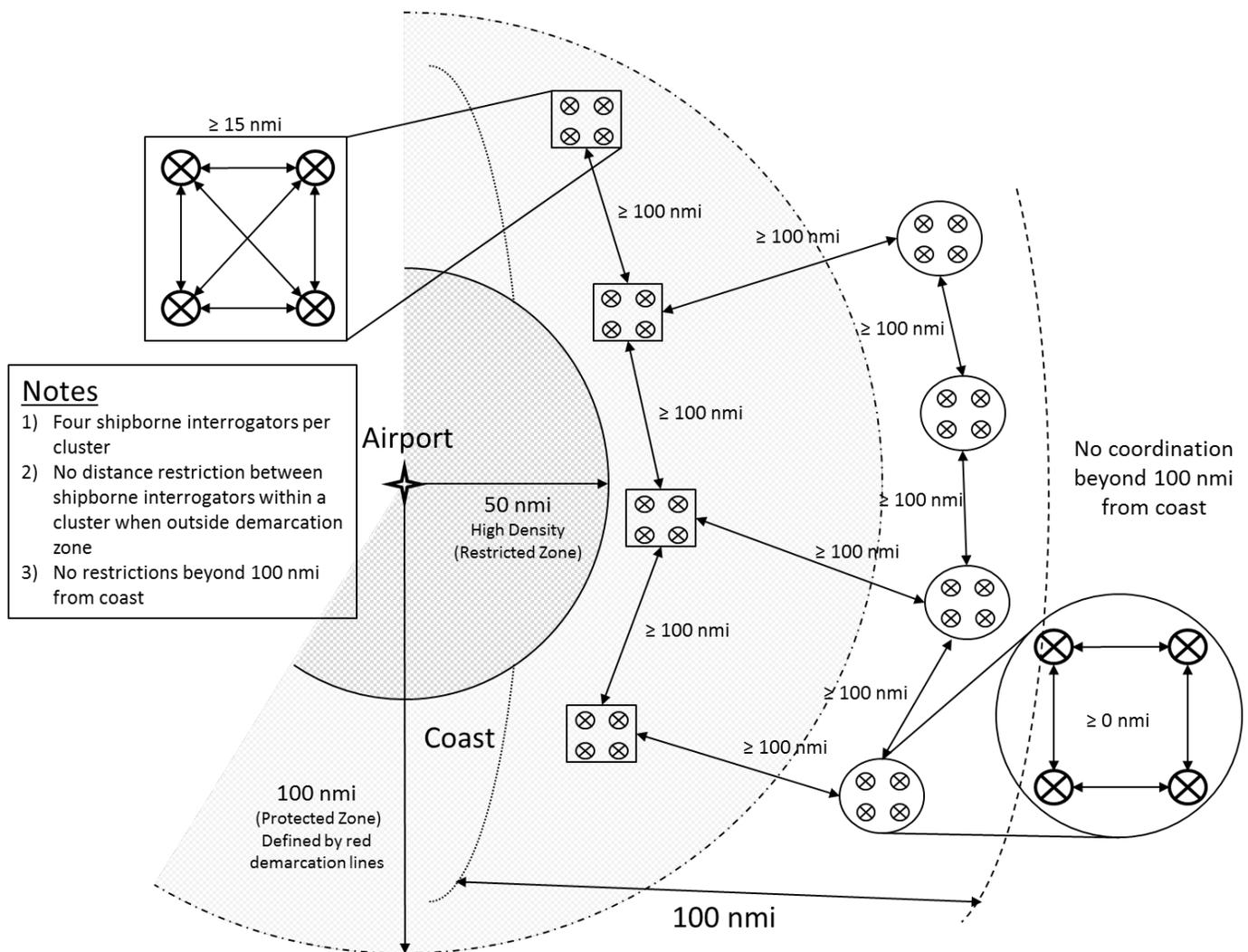


Figure 5. Off-hours Operation in High Aircraft Density Areas (00:00-06:00)

Allowance for Off-hours Operation in Three Excepted High Aircraft Density Areas (00:00-06:00 local time)

There are three identified High Restriction Zones where operation of a single shipborne interrogator is permitted during the off-hour period within the High Restriction Zone. For this exception, all of the restrictions defined by the off-hour operation in High Aircraft Density Areas apply; however, an exception is provided for one of the four shipborne interrogators that defines a cluster in the High Protection Zone to operate in the High Restriction Zone (see Figure 6). The following four areas are granted the aforementioned exception:

Honolulu – HNL High Restriction Zone

Jacksonville – JAX High Restriction Zone

San Diego – SAN High Restriction Zone

Seattle – SEA High Restriction Zone

Operation of a single ship interrogator within one of the given High Restriction Zones is not considered normal approved operation. Each area will have a unique frequency assignment with operational mitigations put in place by the local air traffic control authority, such as “cease buzzer” procedures.

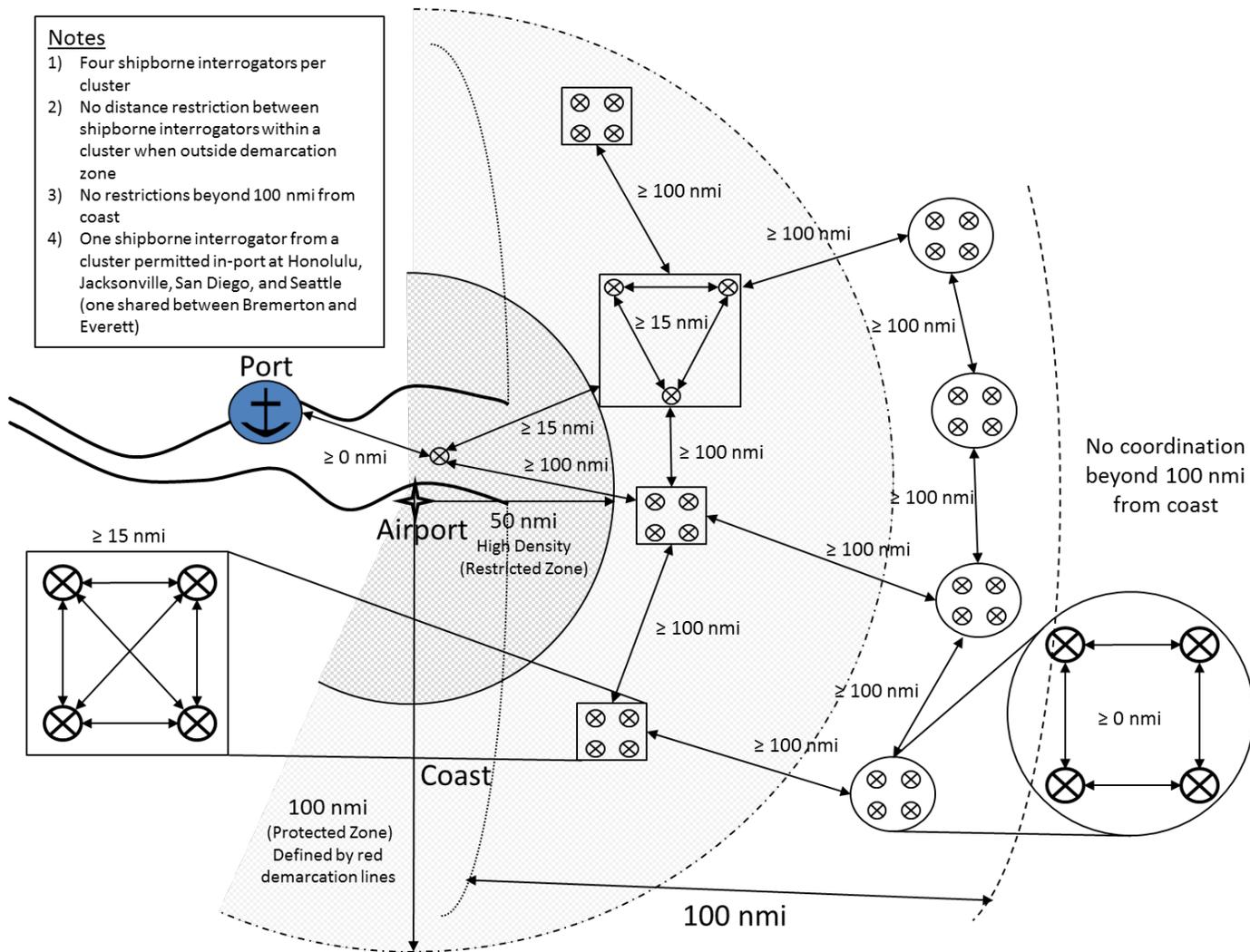


Figure 6. Off-hours Operation in San Diego, Honolulu, and Seattle (00:00-06:00)

Demarcations Derived from FAS 2481/2

The FAS 2481/2 document demarcations used a relatively small number of points to define 60 nmi and 100 nmi radial distances from Low/Medium (yellow circles) and High Aircraft Density Areas (red circles), respectively, from airports and their use for the Protected Zones creates inconsistencies with the proposed AN/UPX-41(C) geometries. The following figures now show demarcation lines that connect points tangent to each airport's 60 nmi or 100 nmi to define the Protected Zones as shown in Figure 7. The tables that follow each figure give the Latitude and Longitude of each point that defines the demarcation line for each region.

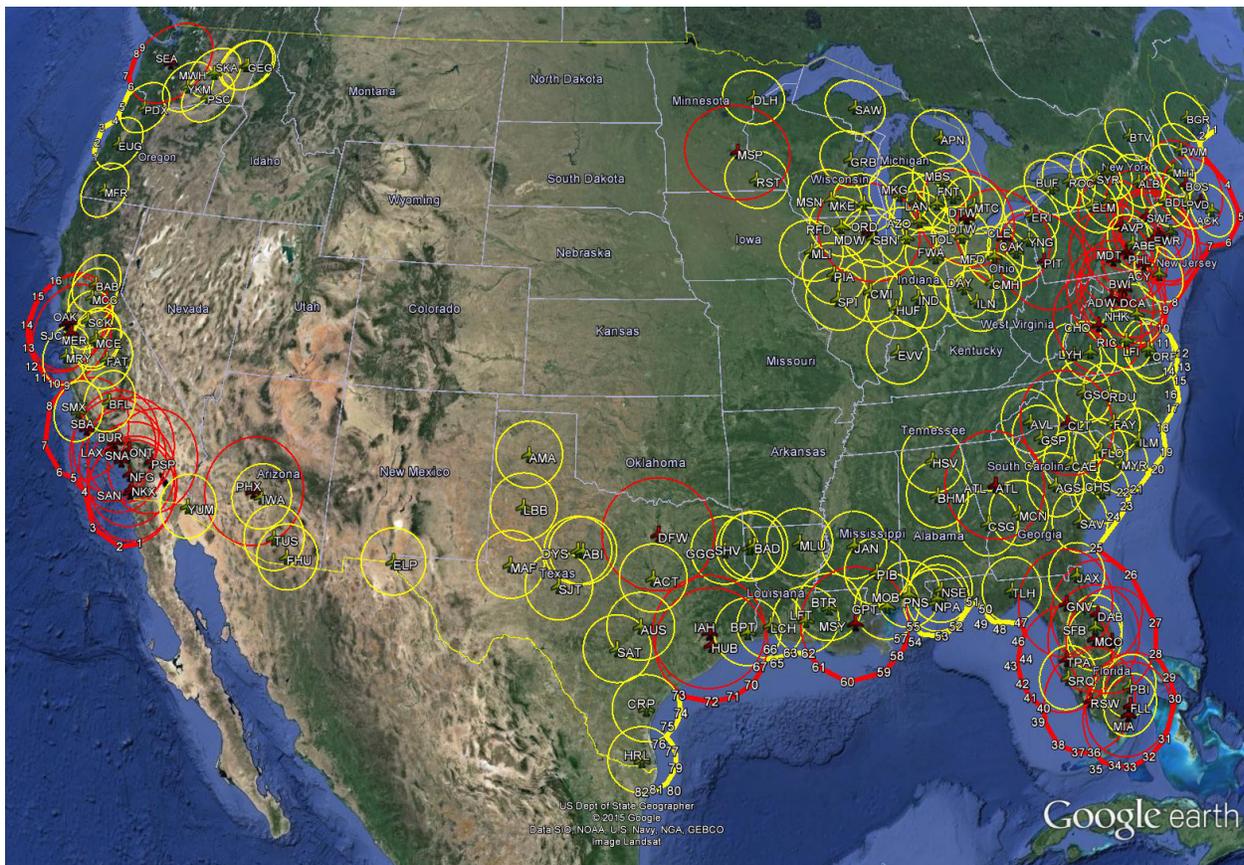


Figure 7. 60 and 100 nmi Circles and Demarcations for Continental US

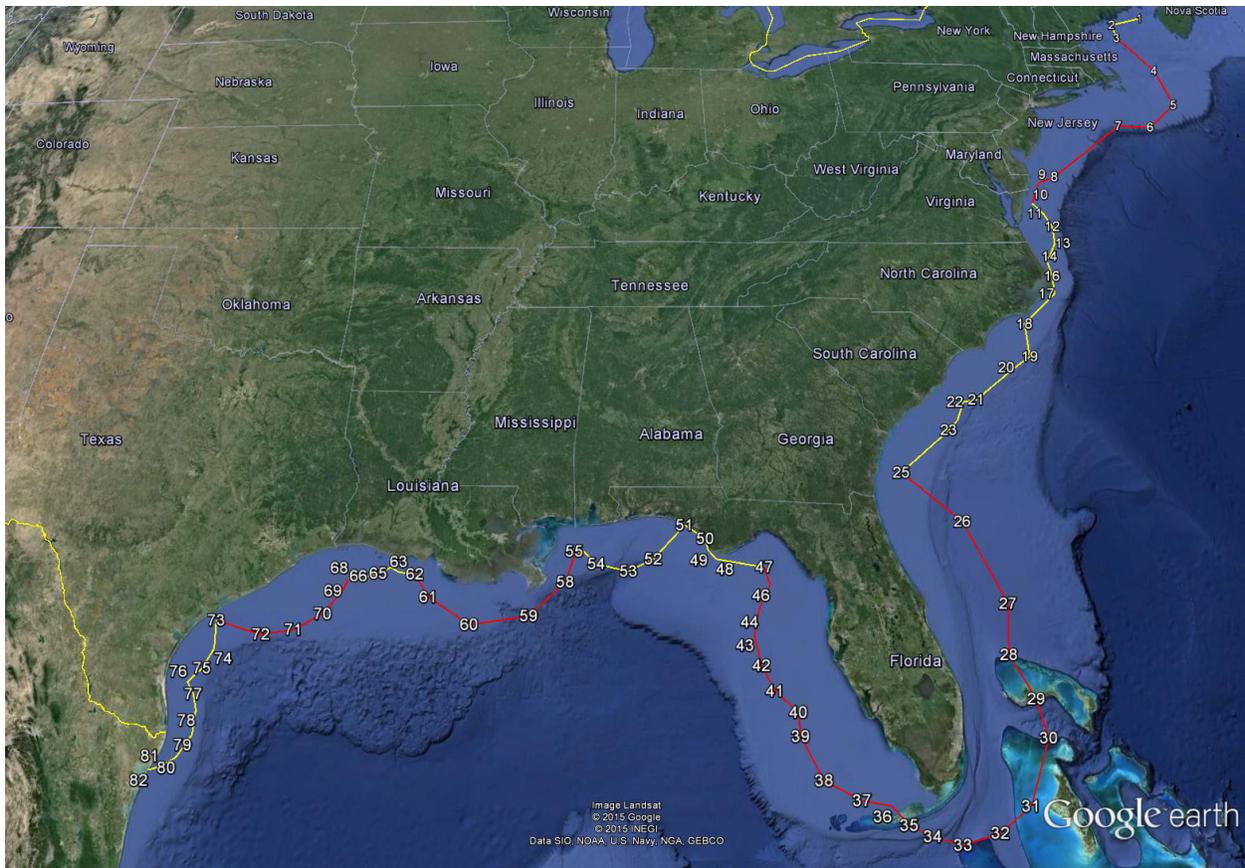


Figure 8. Demarcations for East Coast and Gulf of Mexico

Table 2. Demarcation Points for East Coast and Gulf of Mexico

Point	Latitude	Longitude
1	44.1096	-67.258785
2	43.750786	-68.858959
3	43.222856	-69.031029
4	42.005041	-68.270425
5	40.767741	-68.340979
6	39.981699	-69.847462
7	40.00003	-71.096441
8	38.38784	-74.23403
9	38.203042	-74.855955
10	37.616859	-75.293542
11	37.328671	-75.061049
12	36.968336	-74.917045
13	36.509292	-75.019761
14	36.157388	-75.321886

Point	Latitude	Longitude
15	36.103556	-75.441828
16	35.642235	-75.439382
17	35.191895	-75.524078
18	34.459355	-76.664328
19	33.672956	-76.762952
20	33.428399	-77.256107
21	32.723498	-78.477609
22	32.682009	-78.838125
23	32.273672	-79.087495
24	31.993032	-79.464515
25	31.189078	-80.710349
26	30.125158	-79.421692
27	28.441501	-78.663378
28	27.461106	-78.834738
29	26.596114	-78.370049
30	25.856276	-78.226943
31	24.657094	-78.836067
32	24.227223	-79.582373
33	24.068764	-80.40021
34	24.258371	-81.018462
35	24.480782	-81.486348
36	24.840686	-81.806716
37	24.963019	-82.423743
38	25.346186	-83.178399
39	26.150096	-83.606789
40	26.587318	-83.618621
41	26.991078	-84.081769
42	27.468694	-84.344664
43	28.04555	-84.458536
44	28.486039	-84.336344
45	28.723855	-84.231397
46	28.992841	-84.047115
47	29.34453	-84.14408
48	29.523287	-85.220606
49	29.702265	-85.391458
50	29.928796	-85.445005
51	30.205	-85.897646
52	29.533217	-86.629337

Point	Latitude	Longitude
53	29.297916	-87.180453
54	29.444474	-87.898239
55	29.690894	-88.187239
56	29.689037	-88.263753
57	29.595954	-88.391018
58	29.089191	-88.579387
59	28.430909	-89.361707
60	28.248509	-90.65512
61	28.760137	-91.602955
62	29.198043	-91.955525
63	29.230681	-92.323926
64	29.320681	-92.523178
65	29.193171	-92.790019
66	29.134985	-93.034699
67	29.11793	-93.378008
68	29.077614	-93.463122
69	28.825882	-93.573178
70	28.366766	-93.955756
71	28.040046	-94.572986
72	27.916631	-95.314544
73	28.137745	-96.407075
74	27.59927	-96.346581
75	27.208007	-96.554116
76	26.930135	-96.843052
77	26.709507	-96.65518
78	26.415941	-96.540306
79	25.957786	-96.540861
80	25.518606	-96.829367
81	25.324468	-97.163206
82	25.243393	-97.422349

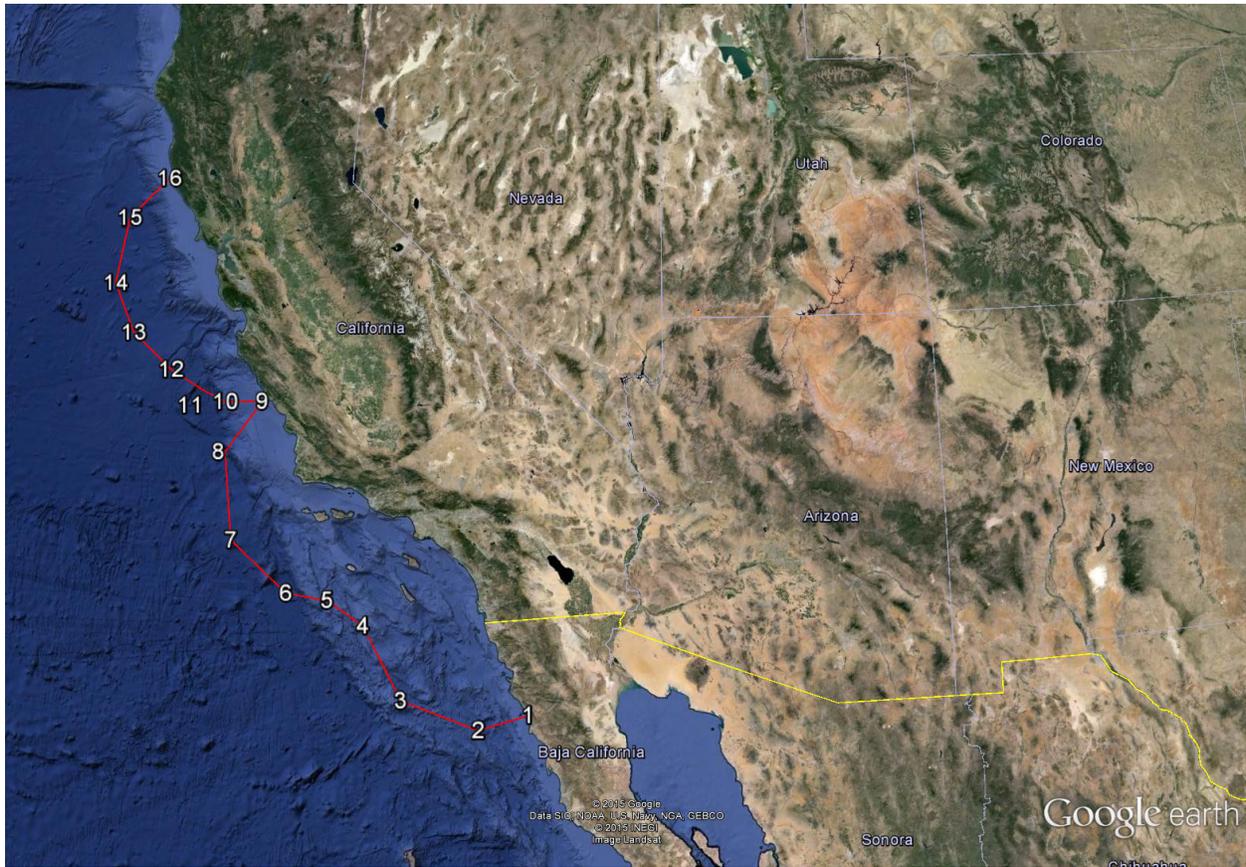


Figure 9. Demarcations for the Bay Area and Southern California

Table 3. Demarcation Points for the Bay Area and Southern California

Point	Latitude	Longitude
1	31.214167	-116.35136
2	30.975585	-117.197621
3	31.359866	-118.533965
4	32.417671	-119.246023
5	32.756508	-119.899943
6	32.822735	-120.640813
7	33.53827	-121.712747
8	34.830903	-121.961263
9	35.61195	-121.347955
10	35.574377	-122.044393
11	35.716555	-122.475671
12	35.999258	-123.166522
13	36.516633	-123.998331
14	37.253004	-124.514174
15	38.282843	-124.427777
16	38.937677	-123.730039

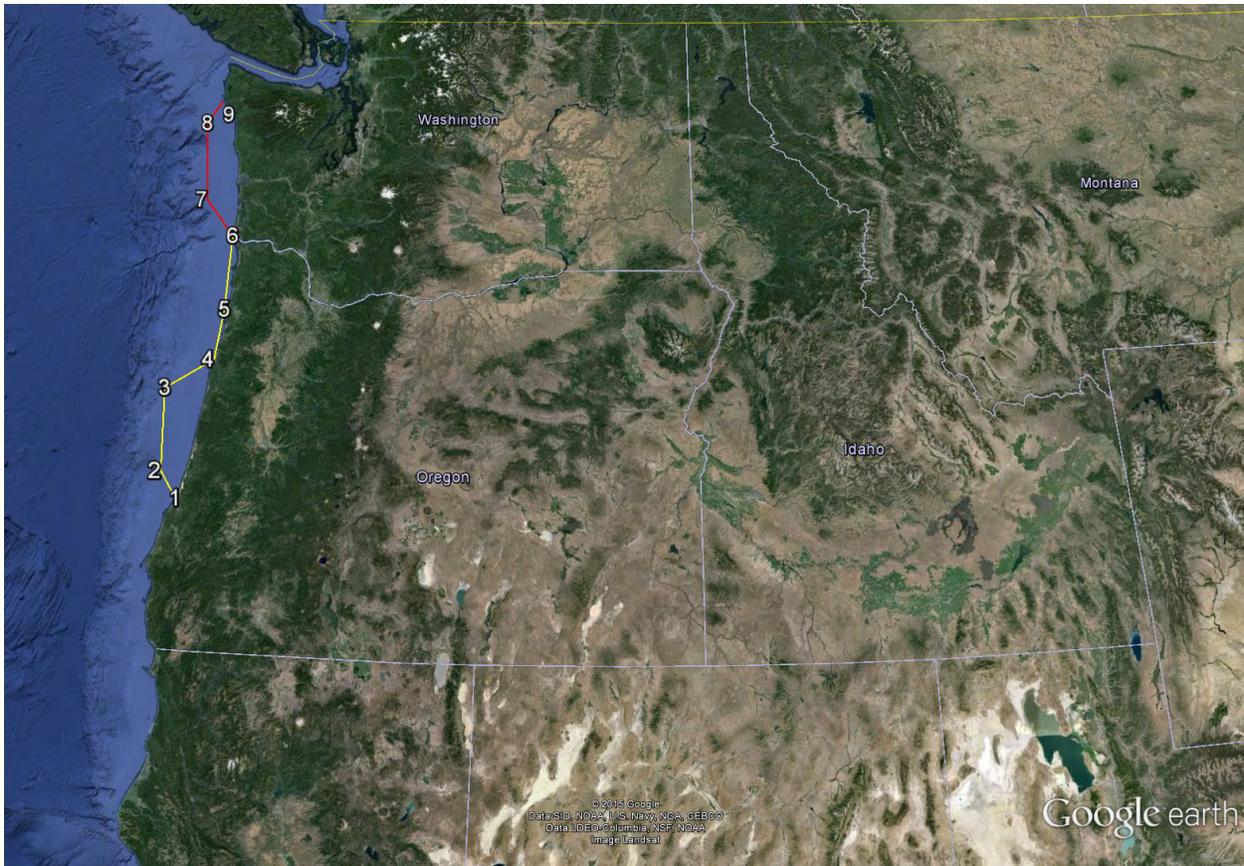


Figure 10. Demarcations for the Portland and Seattle Areas

Table 4. Demarcation Points for the Portland and Seattle Areas

Point	Latitude	Longitude
1	43.476079	-124.269183
2	43.743856	-124.545663
3	44.603981	-124.703176
4	44.933167	-124.040241
5	45.478304	-124.015372
6	46.307403	-124.088772
7	46.716961	-124.604222
8	47.638204	-124.873649
9	47.920255	-124.694826

This page intentionally left blank.

Appendix: Operational Implementation

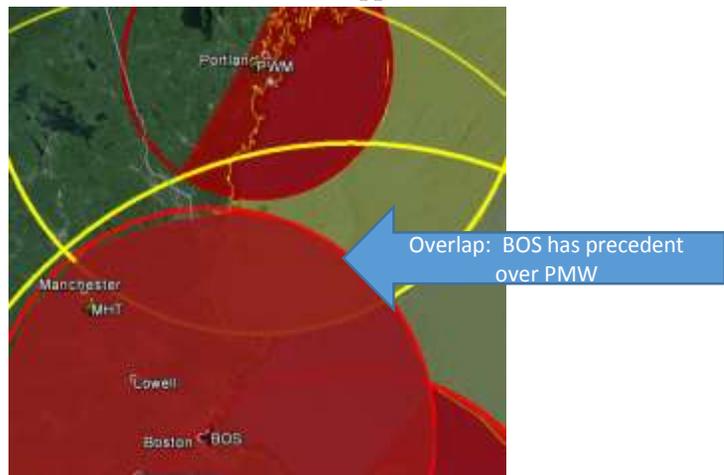
Acknowledgement: The Volpe Center would like to thank Dan Spooner, Rich Talbott and Mark Cianflone for their efforts in creating the Operational Implementation.

Table of Contents

• Matrix Legend	3-4
• Bath Iron Works	5
• Cape Cod and North Coastal Region	6-8
• Cape Cod to VACAPES	9-13
• Norfolk In Port	14
• Cape Hatteras to Charleston	15-17
• Savannah, GA to Patrick AFB, FL	18-21
• Mayport In Port	22
• Miami to Tampa	23-25
• Tallahassee to New Orleans	26-29
• HII Shipyard and Coastal Region	30-32
• New Orleans, LA to Harlingen, TX	33-36
• Puerto Rico-St Thomas	37-38
• San Diego-Long Beach-Los Angeles	39-40
• Los Angeles to San Francisco	41- 44
• San Francisco to Seattle	45-48
• Puget Sound, WA (Bremerton/Everett)	49
• Anchorage, AK	50
• Alaska	51-52
• Hawaii	53-55
• Pearl Harbor, HI	56

Matrix Legend (1 of 2)

- Reference:
 - a) SPS-18692: FAA Standoff Distance Data and Maps.
 - b) Volpe Relaxations Recommendations Document, dated [____]
 - c) Manual of Regulations and Procedures for Federal Radio Frequency Management, January 2008 Edition
- Clusters are defined as a set of up to 4 ships operating in close proximity.
- Shipboard transponders that are not set for Mode C replies of -1000 ft shall not be operated until 13 nmi to sea. (Ref: CINCLANTFLT and PACFLT INST (S) S3120.32 MK XII IFF Policy and Guidance instruction that identifies all limitation and restrictions within the LANTFLT and PACFLT AOR.)
- Transponders may be operated in port under Senior Office Present Afloat (SOPA) Instructions controlled by the SOPA Spectrum Manager provided the transponder have Mode C replies set to -1000 ft, otherwise they shall be turned off.
- Carriers (CV/N) and LHA/D have 2 interrogators, one for ATC and one for the Combat System. Only one (1) of these interrogators may be operating at a time, unless outside 100 nmi from the coast (Blue Areas).
- Air regions are notionally identified as:
 - High Air Traffic Density
 - Low/Medium Air Traffic Density
- Image Graphics:
 - Graphics provide images to better understand the matrices. They don't supersede the matrices. Areas where images appear to not match the matrix exactly are due to the precision of the graphics tool.
 - Red circle with Red Area = Restricted Zone. No interrogators are permitted without a Special Temporary Authorization (STA).
 - Yellow Circle with Yellow Area = Protected Zone. Interrogators permitted as defined in the associated table
 - Green Circle with Green Area = Relaxed Zone. Interrogators permitted as defined in the associated table
 - Blue areas (outside Green Circles) = Unprotected Zone. No special restrictions
- Where areas overlap, unless otherwise specified, the more stringent restriction applies.
 - For example: The Yellow Area (Protected) for PWM overlaps the Red Area (Restricted) for BOS. The Red Area is more restrictive and the rules applicable to BOS are the ones that take precedent.



Matrix Legend (2 of 2)

- Acronyms:
 - AOR = Area of Responsibility
 - BIW SY = Bath Iron Works Ship Yard
 - HII SY = Huntington Ingalls Industries Ship Yard
 - IAW = In accordance with
 - LBTS = Land Base Test Site
 - RFA = Radio Frequency Assignment
 - SOPA = Senior Office Present Afloat
 - STA = Special Temporary Authorization [IAW: Section 8.3.31 of ref: (c)]

Header, Reference location for UPX-41(C) in this location

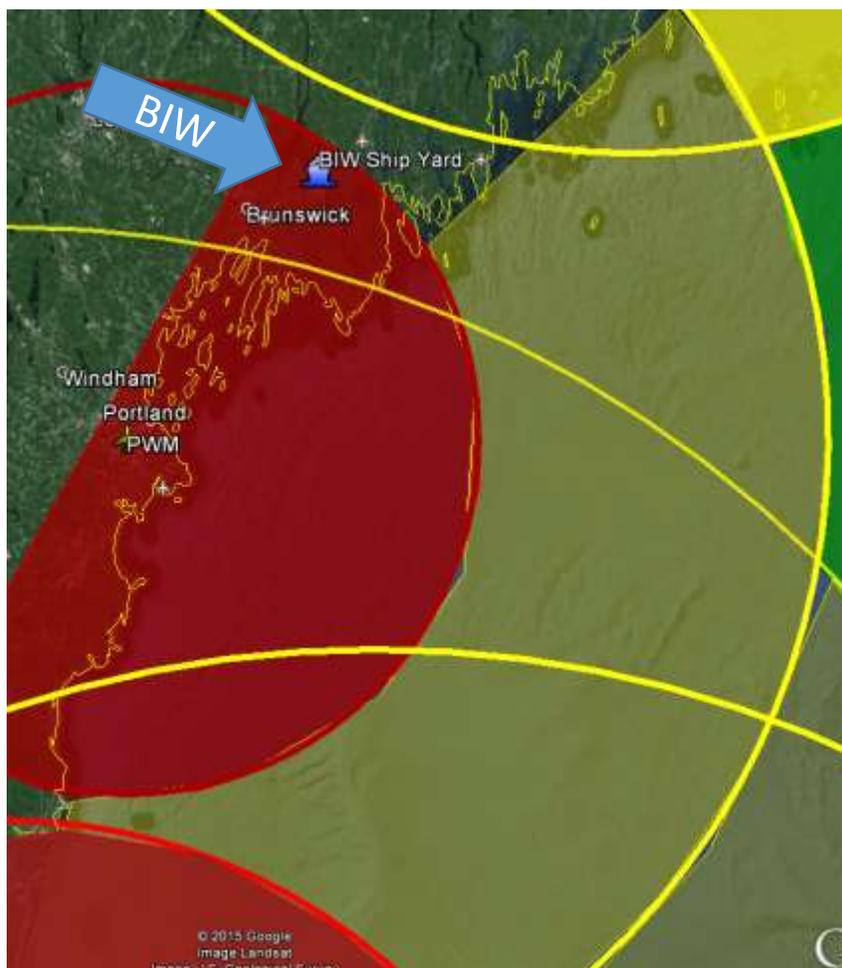
Time of Day Column.

• Rows specifies the allowance for UPX-41(C) for the time of day.
 • Row specifies the restrictions for use of the interrogators in the column header.

Bangor, ME (BGR) Lat/Lon = 44.805833, -68.839; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use	1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi	1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent	1. No restrictions 2. No RFA required
2100-0600	2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA	2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required

Bath Iron Works (Pier side)

Portland, ME (PWM) Lat/Lon = 43.646167, -70.309278; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator [IAW: Section 8.3.31 of ref: (c)]	NA	NA	NA
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	NA	NA	NA



Interim

Cape Cod and North (1 of 3)

Bangor, ME (BGR) Lat/Lon = 44.805833, -68.839; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required
2100-0600	1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required

Portland, ME (PWM) Lat/Lon = 43.646167, -70.309278; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required
2100-0600	1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required

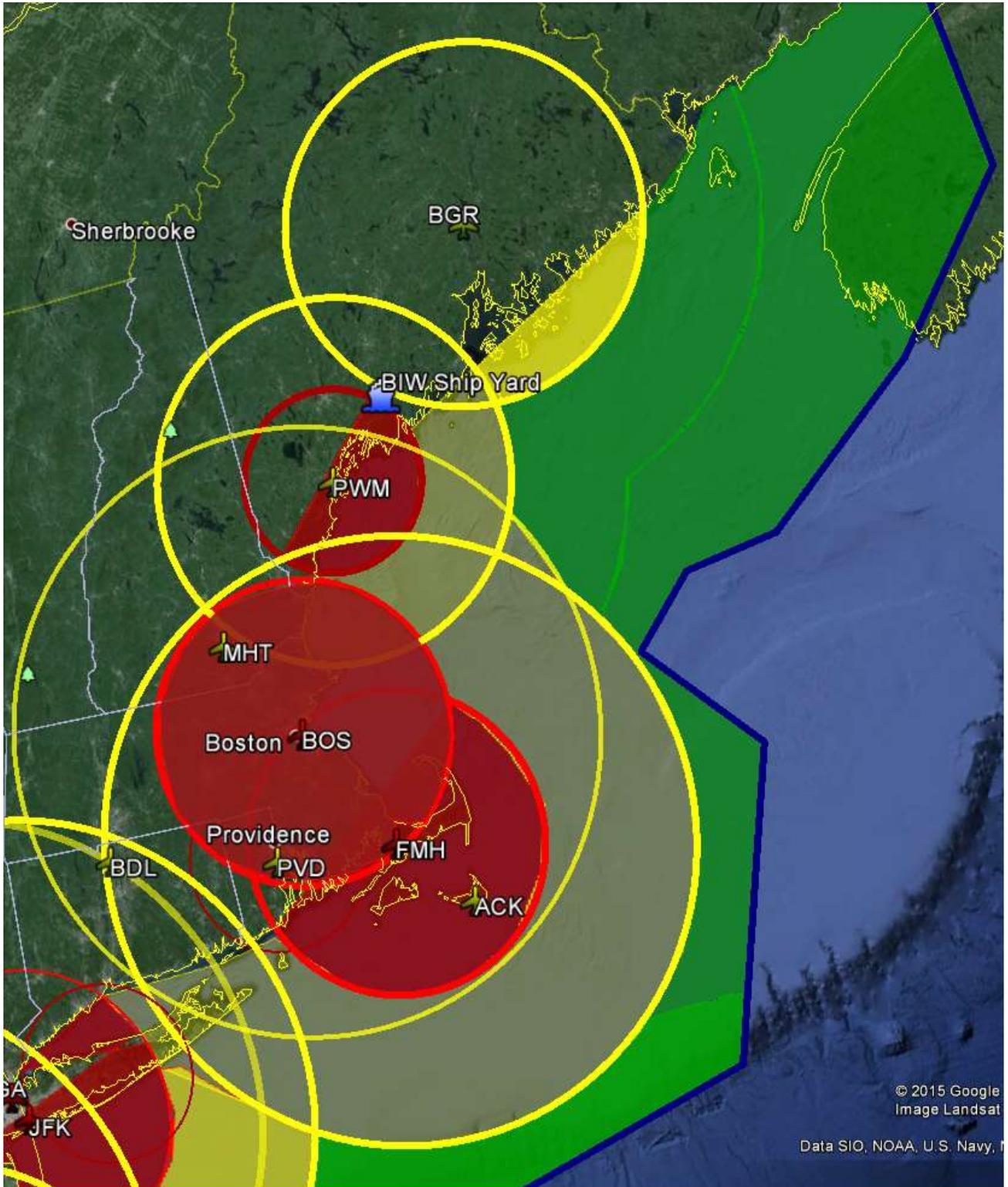
Interim

Cape Cod and North (2 of 3)

Boston, MA (BOS) Lat/Lon = 42.348556, -71.006083; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Falmouth-Otis AFB, MA (FMH) Lat/Lon = 41.662389 -70.522389; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Cape Cod and North (3 of 3)



Cape Cod to VACAPES (1 of 5)

Falmouth-Otis AFB, MA (FMH) Lat/Lon = 41.662389 -70.522389; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

John F. Kennedy (JFK) Lat/Lon = 40.639556, -73.766444; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Interim

Cape Cod to VACAPES (2 of 5)

Atlantic City, NJ (ACY) Lat/Lon = 39.452751 -74.591919; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required
2100-0600	<ol style="list-style-type: none"> No separation limit within a cluster. Interrogator testing in port permitted. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required

Philadelphia, PA (PHL) Lat/Lon = 39.859047 -75.266678; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 250 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 250 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required

Cape Cod to VACAPES (3 of 5)

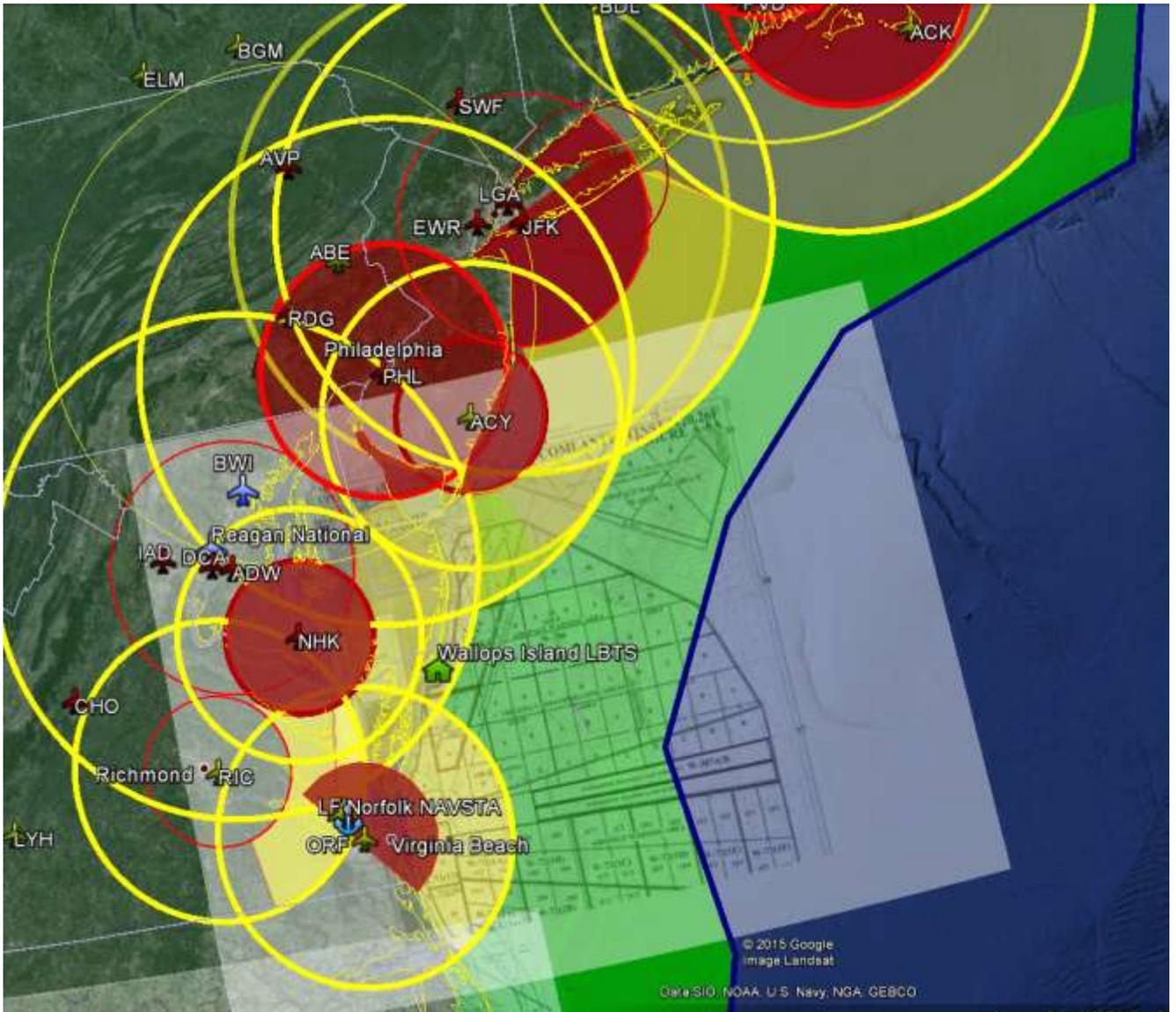
Patuxent River Naval Air Station (NHK) Lat/Lon = 38.29876111 -76.41194167; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required
2100-0600	<ol style="list-style-type: none"> No separation limit within a cluster. Interrogator testing in port permitted. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required

Andrews AFB, MD (ADW) Lat/Lon = 38.812263 -76.867363; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 250 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 250 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required

Cape Cod to VACAPES (4 of 5)

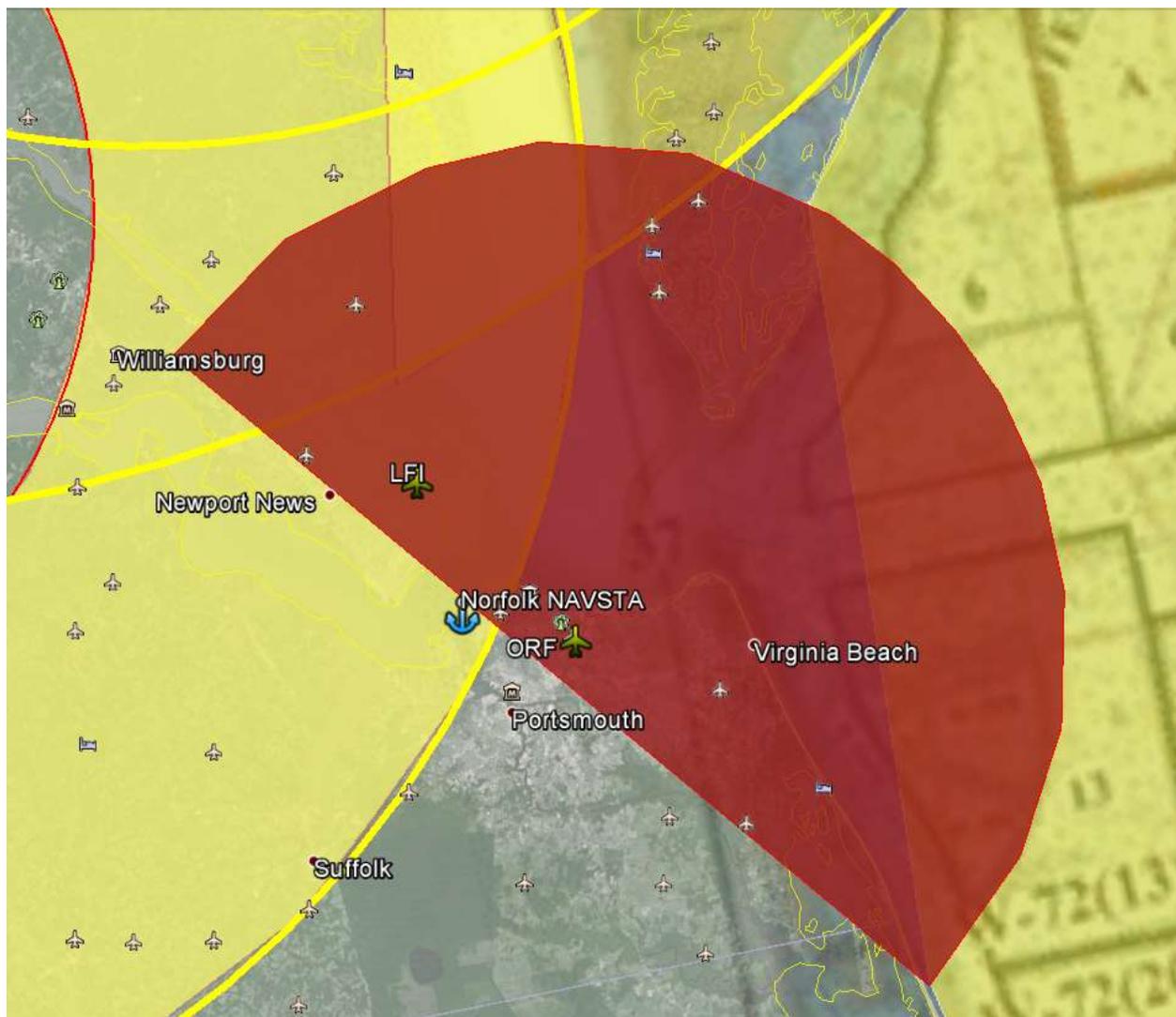
Norfolk (ORF) Lat/Lon = 36.895638, -76.192368; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Cape Cod to VACAPES (5 of 5)



Norfolk In Port

Norfolk (ORF) Lat/Lon = 36.895638, -76.192368; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	<p>Special Temporary Authorization (STA) required to allow interrogator [IAW: Section 8.3.31 of ref: (c)]</p>	NA	NA	NA
2100-0600	<ol style="list-style-type: none"> No separation limit within a cluster. Interrogator testing in port permitted. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	NA	NA	NA



Cape Hatteras to Charleston (1 of 3)

Norfolk (ORF) Lat/Lon = 36.895638, -76.192368; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

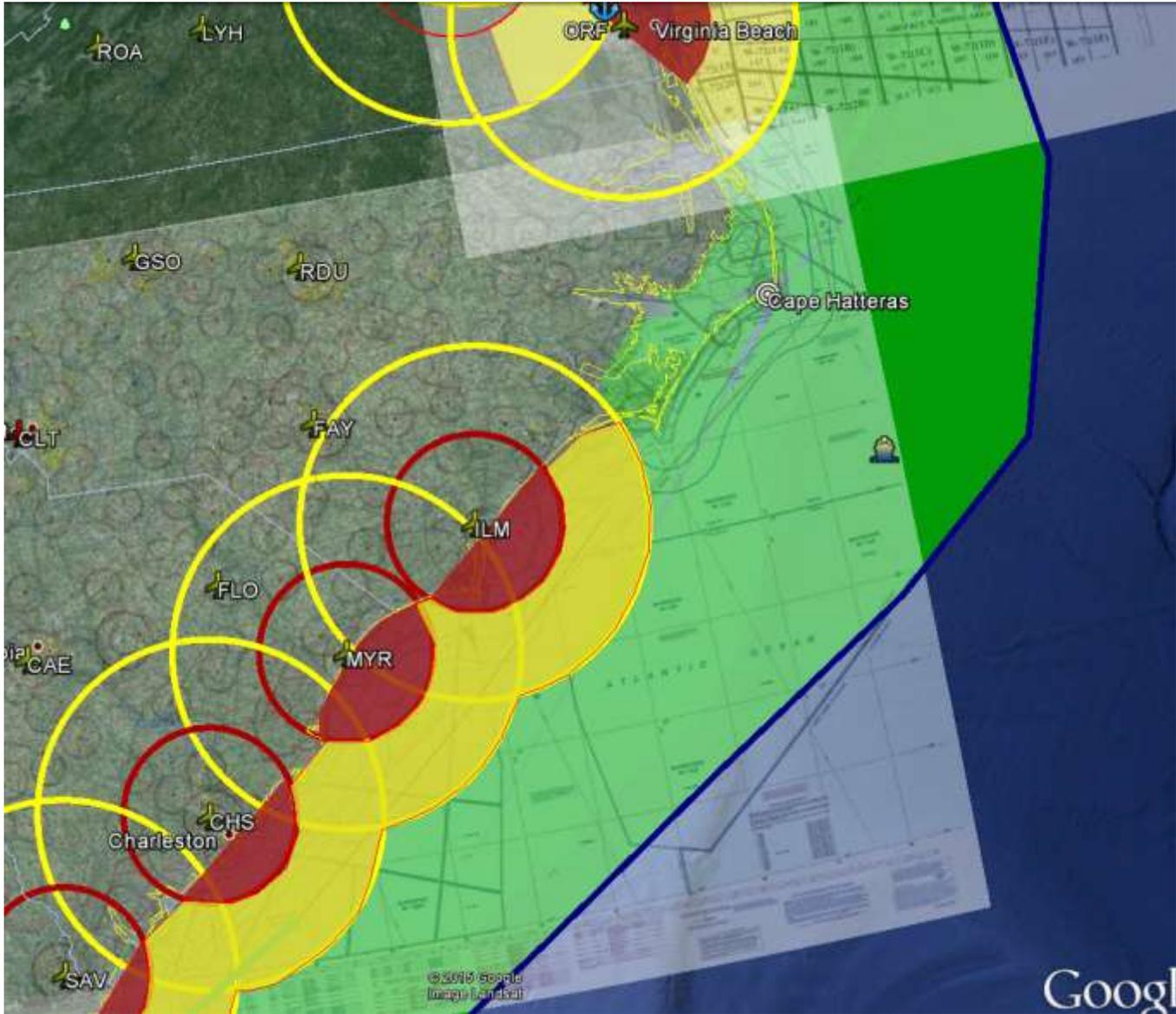
Wilmington (ILM) Lat/Lon = 34.268583, -77.896528; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Cape Hatteras to Charleston (2 of 3)

Myrtle Beach, NC (MYR) Lat/Lon = 33.675944 -78.935278; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Charleston AFB/Intl, SC (CHS) Lat/Lon = 32.874528 -80.041389; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Cape Hatteras to Charleston (3 of 3)



Savannah, GA to Patrick AFB, FL (1 of 3)

Savannah, GA (SAV) Lat/Lon = 32.133444 -81.213278; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
Jacksonville (JAX) Lat/Lon = 30.509776, -81.709267; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. One (1) interrogator permitted 2. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Savannah to Patrick AFB (2 of 3)

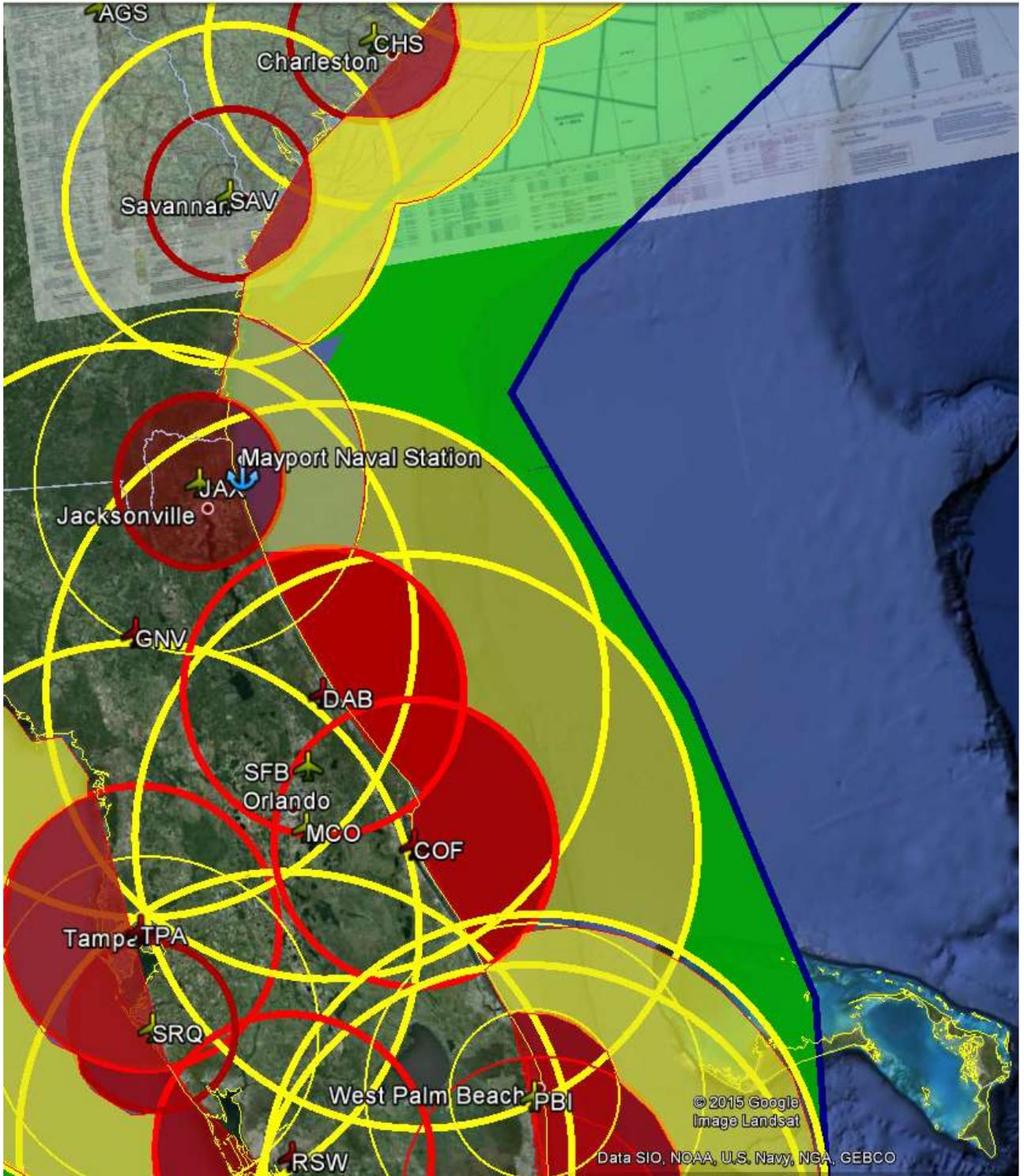
Daytona Beach, FL (DAB) Lat/Lon = 29.17267222 -81.19217778; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Gainesville, FL (GVN) Lat/Lon =29.415378 -82.232294 ; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Savannah to Patrick AFB (2 of 3)

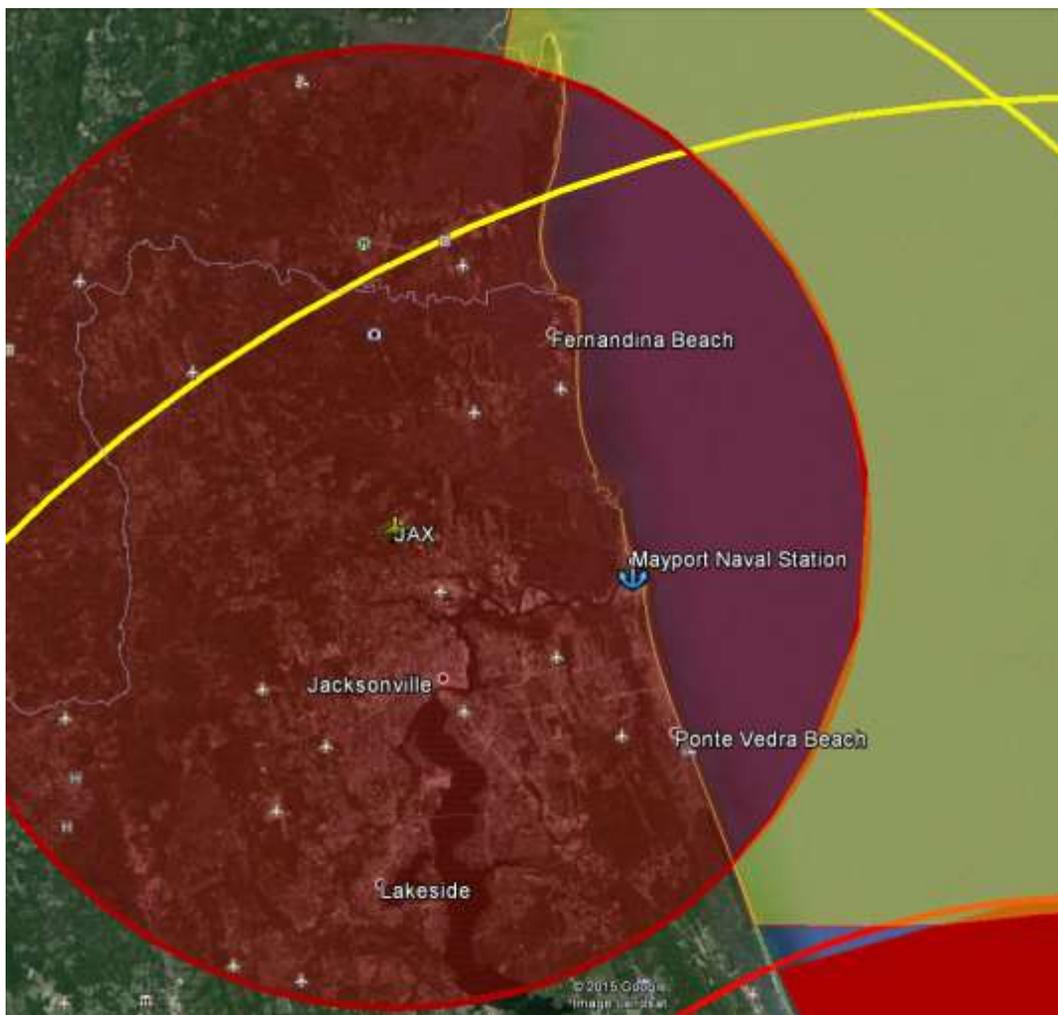
Patrick AFB, FL (COF) Lat/Lon = 28.11171 -80.66856; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Savannah to Patrick AFB (3 of 3)



Mayport In Port

Jacksonville (JAX) Lat/Lon = 30.509776, -81.709267; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	N/A	N/A	N/A
2100-0600	1. One (1) Interrogator permitted 2. Interrogator testing in port permitted. 3. Acquire Permanent RFA	N/A	N/A	N/A



Miami to Tampa (1 of 3)

Miami (MIA) Lat/Lon = 25.79325, -80.2905556; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

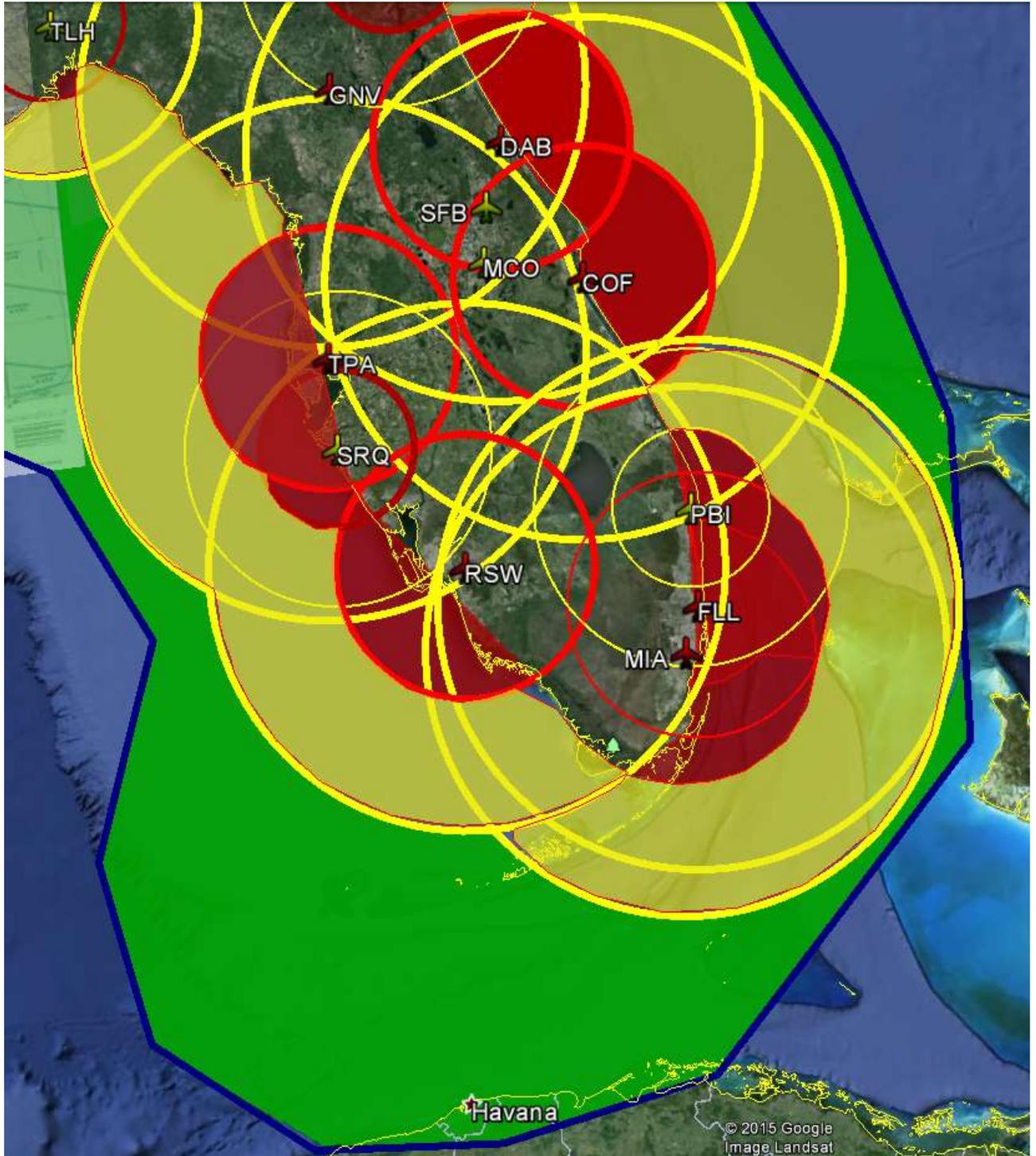
Ft Myers (RSW) Lat/Lon = 26.544778 -81.768889; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Miami to Tampa (2 of 3)

Sarasota-Bradenton (SRQ) Lat/Lon = 27.394476 -82.549995; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Tampa, FL (TPA) Lat/Lon = 27.987644 -82.544899; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Miami to Tampa (3 of 3)



Gainesville to New Orleans (2 of 4)

Gainesville, FL (GVN) Lat/Lon = 29.415378 -82.232294 ; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 250 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 250 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required

Tallahassee, FL (TLH) Lat/Lon = 30.387778, -84.344722; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required
2100-0600	<ol style="list-style-type: none"> No separation limit within a cluster. Interrogator testing in port permitted. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required

Gainesville to New Orleans (1 of 4)

Pensacola, FL (PNS) Lat/Lon = 30.482111, -87.185972; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

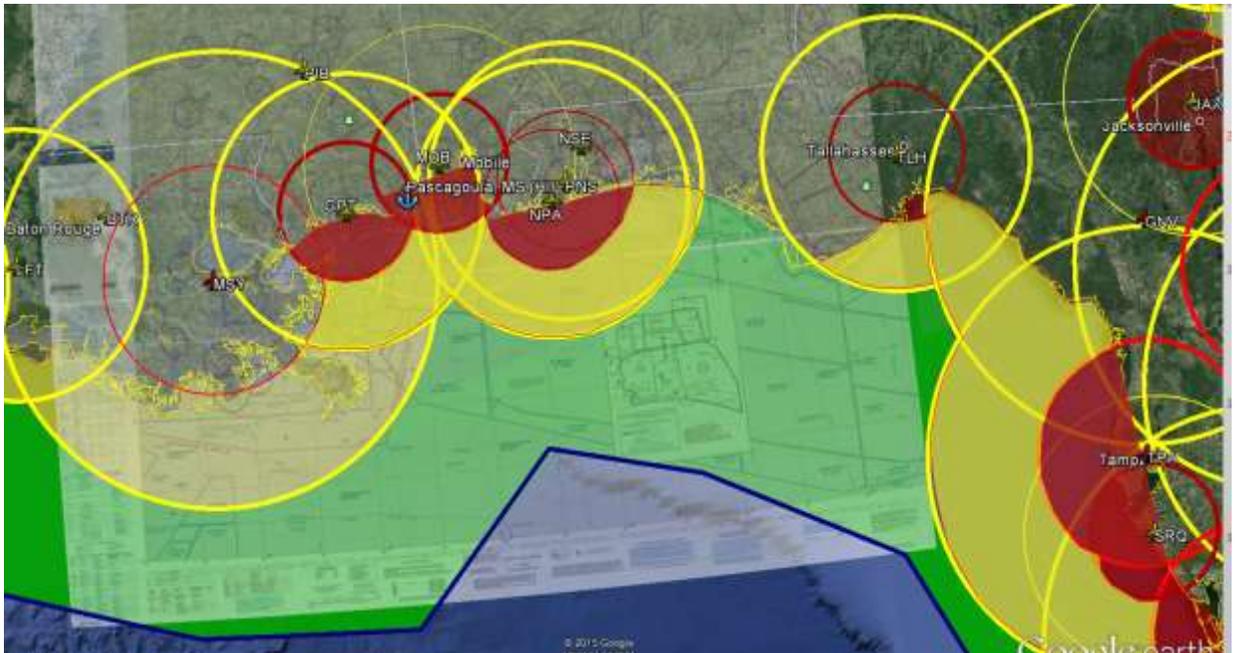
Mobile, AL (MOB) Lat/Lon = 30.690583, -88.248417; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Gainesville to New Orleans (3 of 4)

Gulfport-Biloxi, MS (GPT) Lat/Lon = 30.406833, -89.082; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

New Orleans, LA (MSY) Lat/Lon = 29.997444, -90.253472; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Gainesville to New Orleans (4 of 4)



HII Shipyard and Coastal Region (1 of 3)

Pensacola NAS, FL (NPA) Lat/Lon = 30.364806, -87.311361; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required
2100-0600	1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required

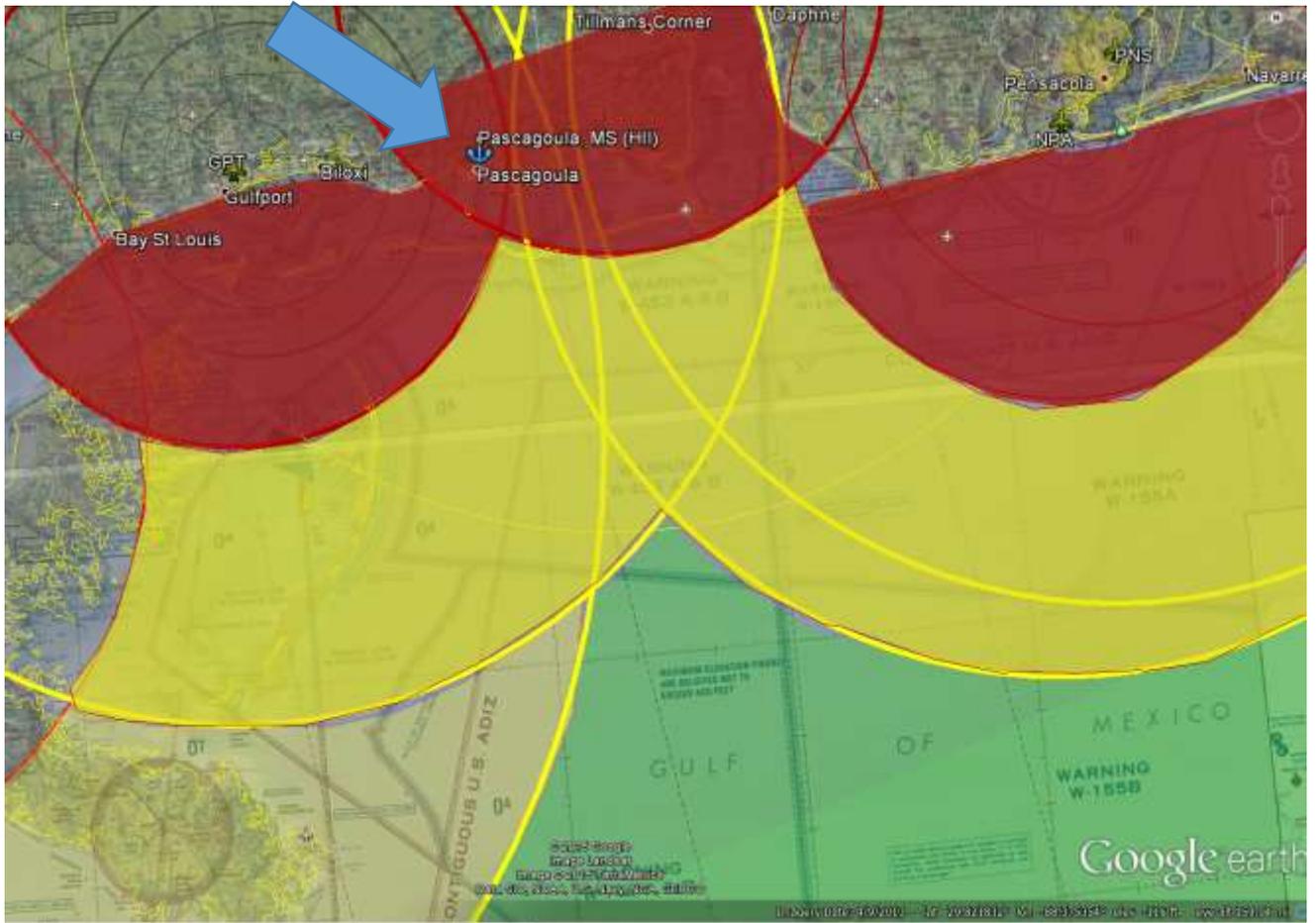
Gulfport-Biloxi, MS (GPT) Lat/Lon = 30.406833, -89.082; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required
2100-0600	1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required

HII Shipyard and Coastal Region (2 of 3)

Pensacola NAS, FL (NPA) Lat/Lon = 30.364806, -87.311361; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

New Orleans, LA (MSY) Lat/Lon = 29.997444, -90.253472; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

HII Shipyard and Coastal Region (3 of 3)



New Orleans, LA to Harlingen, TX (1 of 4)

New Orleans, LA (MSY) Lat/Lon = 29.997444, -90.253472; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Lafayette, LA (LFT) Lat/Lon = 30.213667, -91.987833; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

New Orleans, LA to Harlingen, TX (2 of 4)

Lake Charles, LA (LCH) Lat/Lon = 30.138694, -93.227167; Medium Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required
2100-0600	1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required

Beaumont, TX (BPT) Lat/Lon = 29.948861, -94.025306; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required
2100-0600	1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required

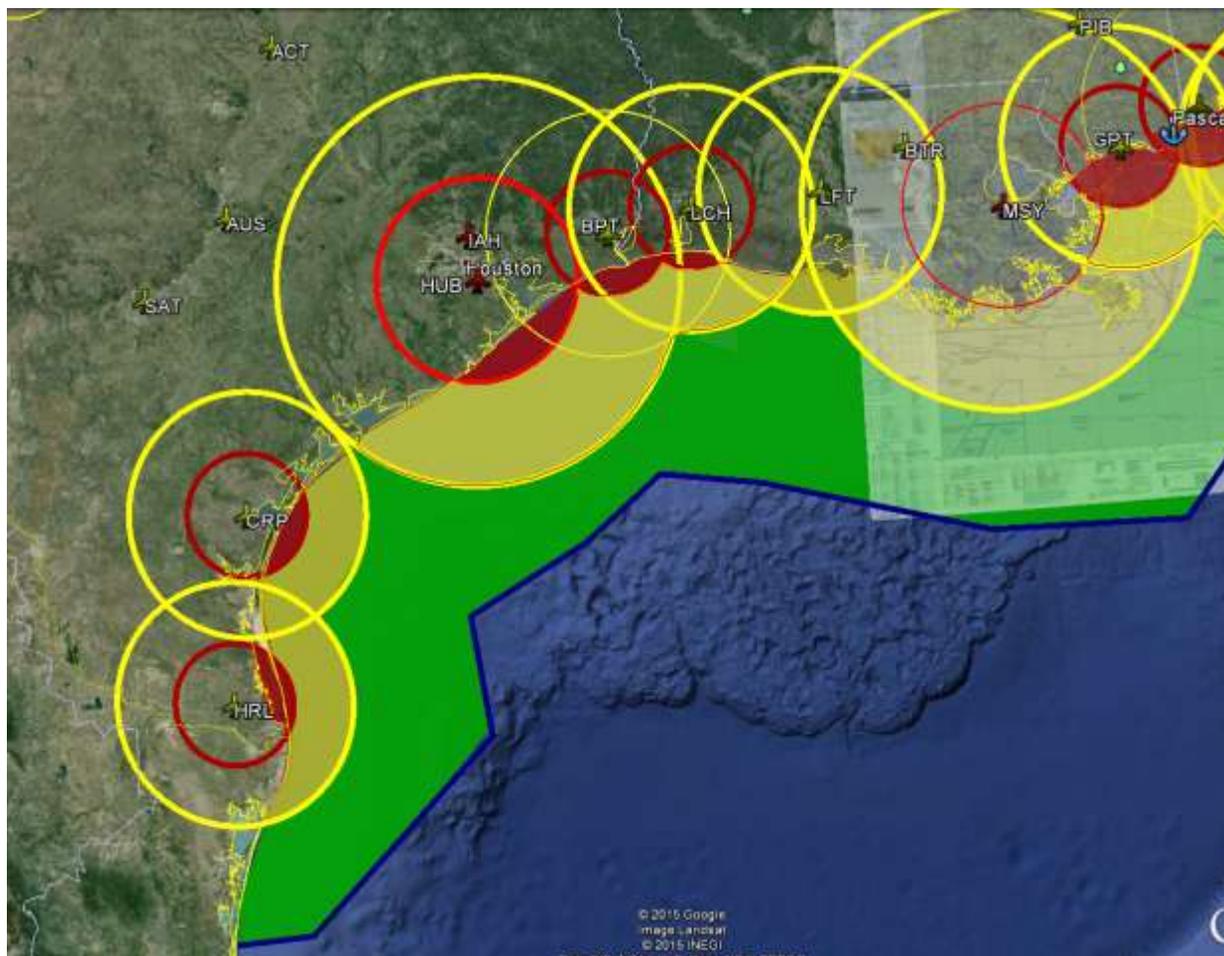
New Orleans, LA to Harlingen, TX (3 of 4)

Houston-Hobby, TX (HUB) Lat/Lon = 29.618194, -95.270639; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Corpus Christi, TX (CRP) Lat/Lon = 27.76468 -97.50584; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

New Orleans, LA to Harlingen, TX (4 of 4)

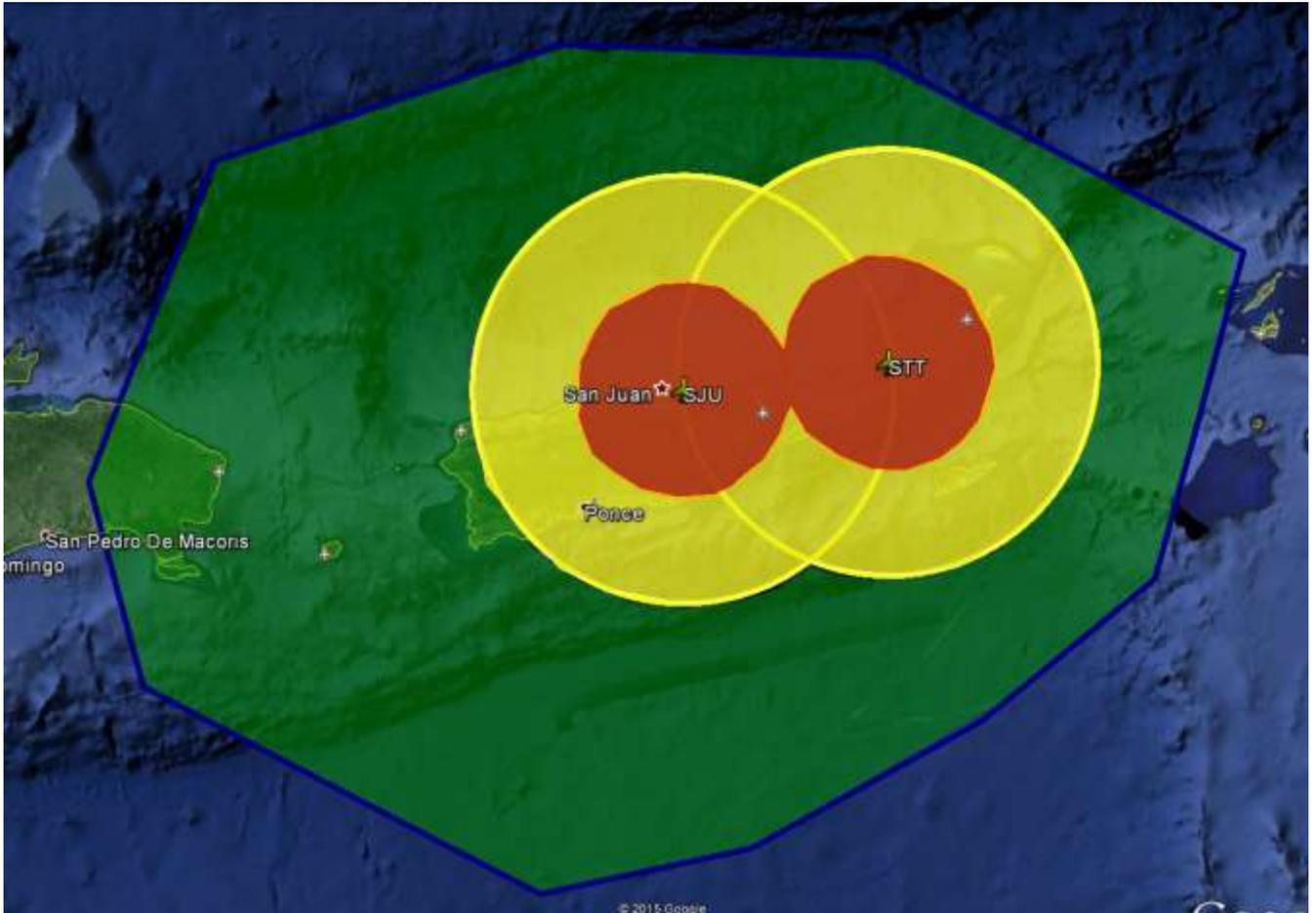
Harlingen, TX (HRL) Lat/Lon = 26.162889, -97.712111; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required
2100-0600	<ol style="list-style-type: none"> No separation limit within a cluster. Interrogator testing in port permitted. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required



Puerto Rico-St Thomas (1 of 2)

San Juan (SJU) Lat/Lon = 18.451861, -65.99125; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
St. Thomas (STT) Lat/Lon = 18.347167, -65.025972; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Puerto Rico-St Thomas (2 of 2)

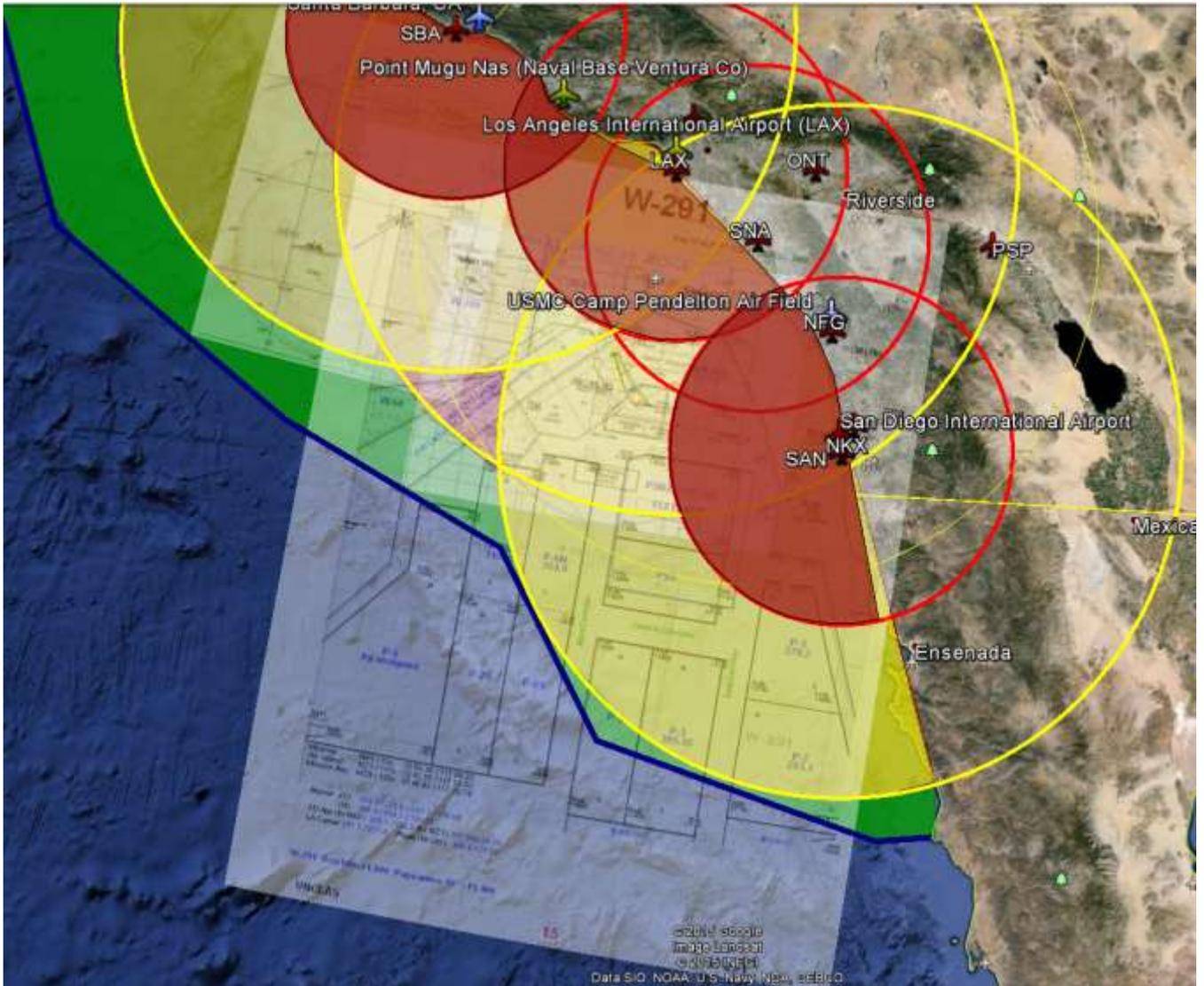


San Diego-Long Beach-Los Angeles

San Diego (SAN) Lat/Lon = 32.7335556, -117.1896667; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	<ol style="list-style-type: none"> 1. One (1) interrogator permitted 2. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Long Beach/Seal Beach Los Angeles (LAX) 33.9425361, -118.4080744; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

San Diego-Long Beach-Los Angeles



Interim

Los Angeles to San Francisco (1 of 4)

Los Angeles (LAX) 33.9425361, -118.4080744; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Santa Barbara, CA (SBA) Lat/Lon = 34.423972 -119.842333; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Interim

Los Angeles to San Francisco (1 of 4)

Santa Marla, CA (SMX) Lat/Lon = 34.901561, -120.473017; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required
2100-0600	<ol style="list-style-type: none"> No separation limit within a cluster. Interrogator testing in port permitted. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required

Monterey/Fort Ord/Marina (MRY) Lat/Lon = 36.694694 -121.757972; Medium Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required
2100-0600	<ol style="list-style-type: none"> No separation limit within a cluster. Interrogator testing in port permitted. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required

Interim

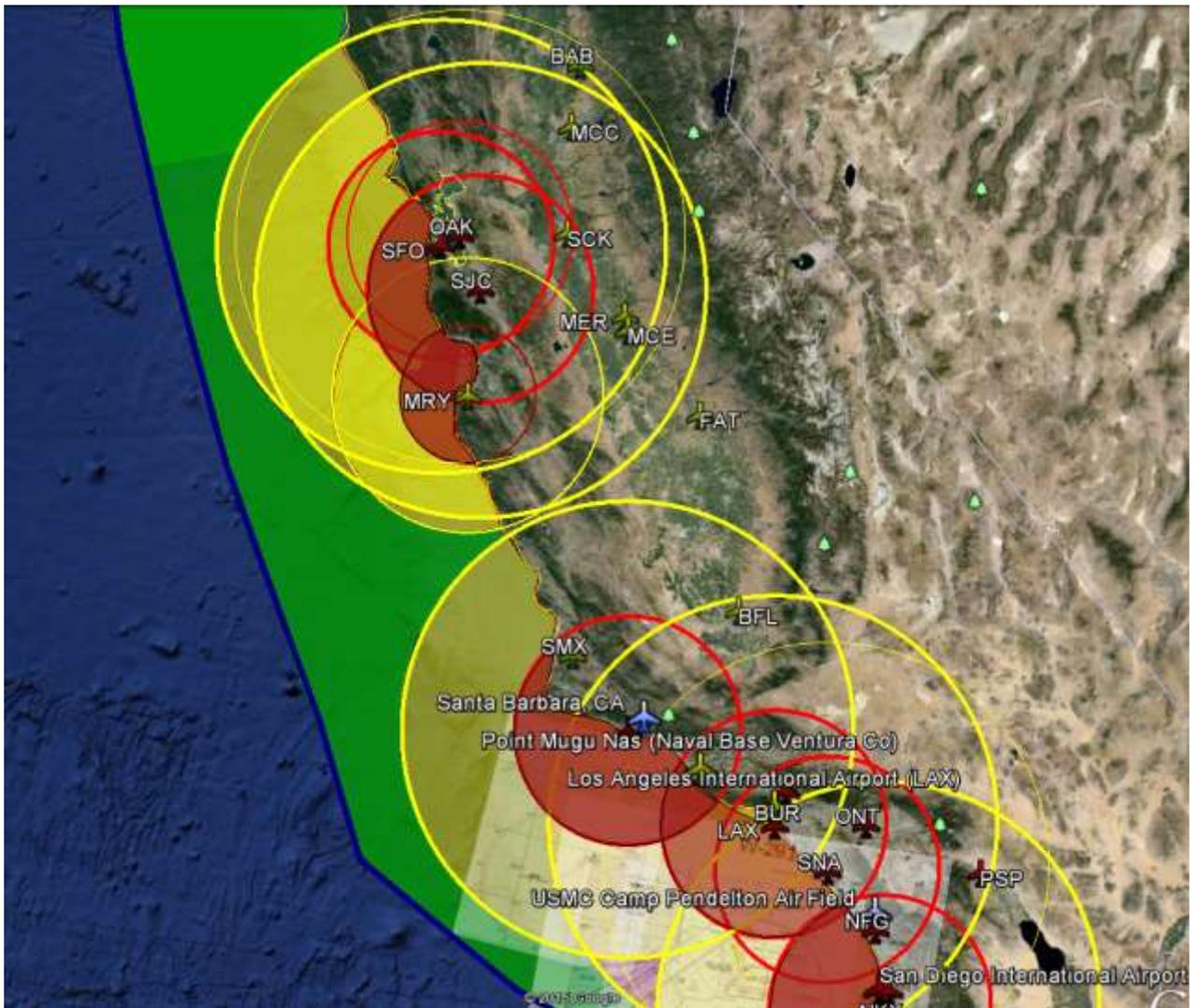
Los Angeles to San Francisco (1 of 4)

San Jose (SJC) Lat/Lon = 37.3619 -121.9290089; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Oakland (OAK) Lat/Lon = 37.706139 -122.225306; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

San Francisco (SFO) Lat/Lon = 37.6189722 -122.3748889; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Los Angeles to San Francisco (1 of 4)



Interim

San Francisco to Seattle(1 of 4)

San Francisco (OAK) Lat/Lon = 37.7583214, -122.3992165; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Medford, OR (MFR) Lat/Lon = 42.385161, -122.863031; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Interim

San Francisco to Seattle(2 of 4)

Eugene, OR (EUG) Lat/Lon = 44.124611, -123.225472; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

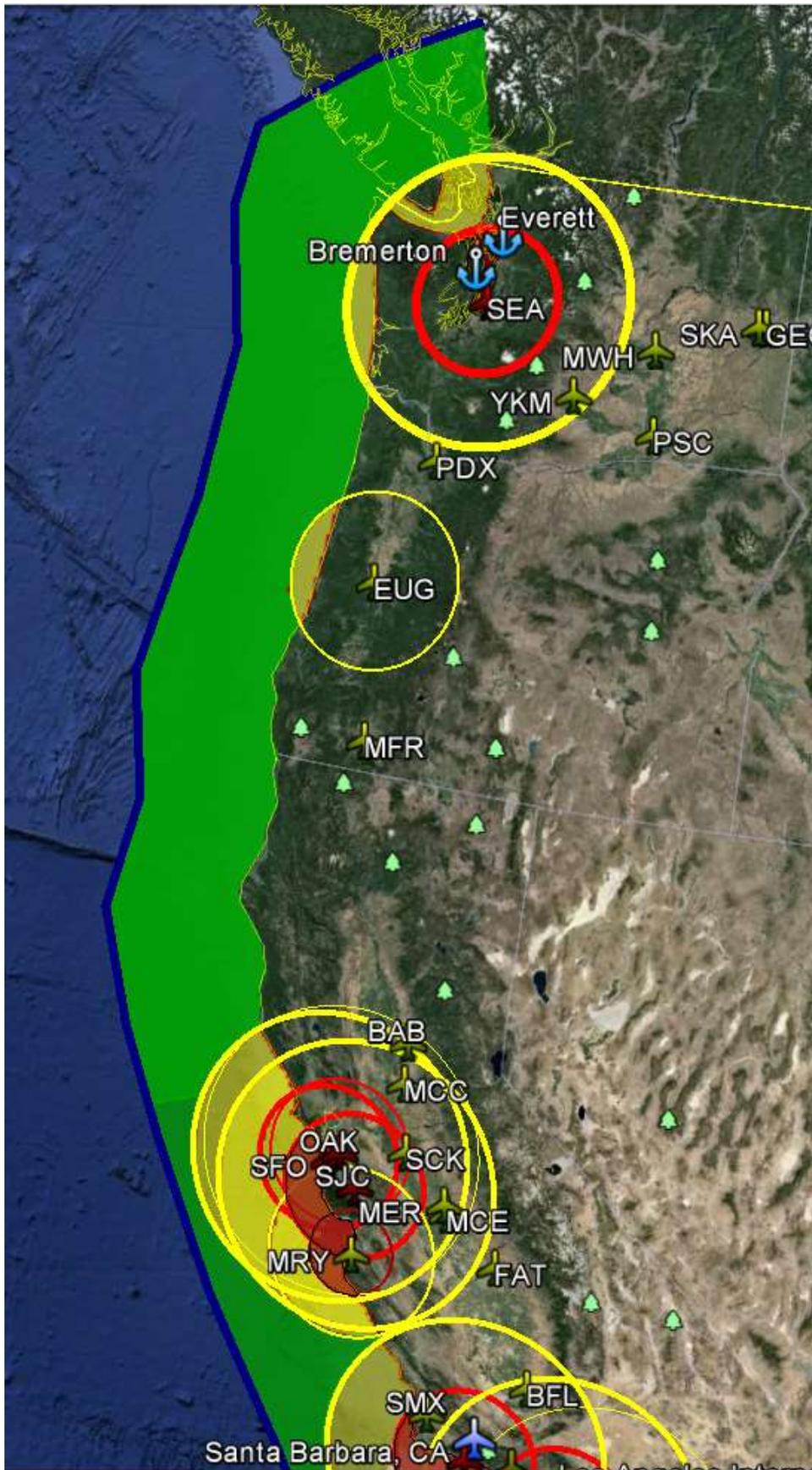
Portland, OR (PDX) Lat/Lon = 45.586611, -122.626806; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Interim

San Francisco to Seattle(3 of 4)

Seattle-Tacoma, WA (SEA) Lat/Lon = 47.452472, -122.316778; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 250 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
0000-0600	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

San Francisco to Seattle (4 of 4)



Interim

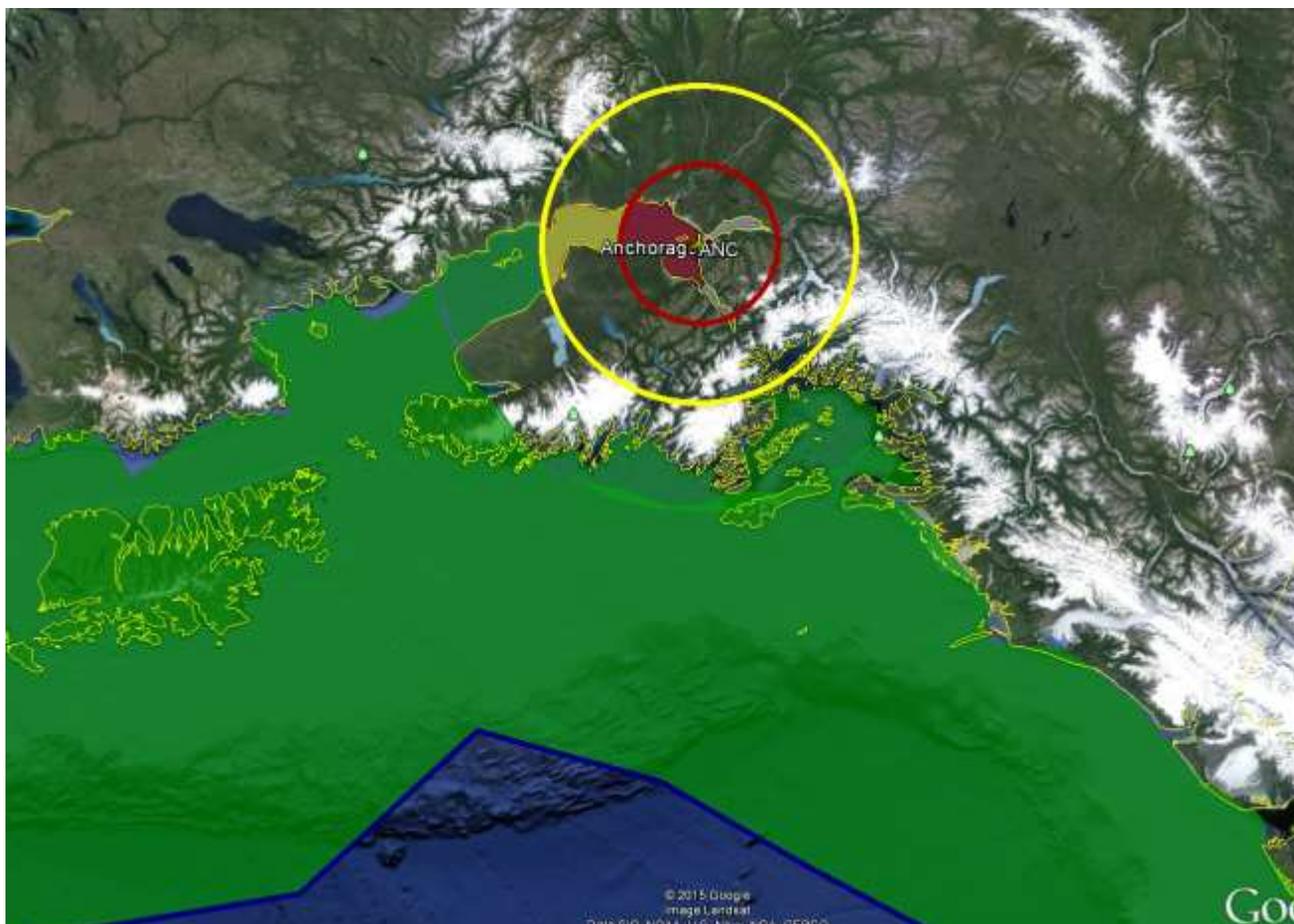
Puget Sound, WA (Bremerton/Everett)

Seattle (SEA) Lat/Lon = 47.450227, -122.3079682; High Density			
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	N/A	N/A
0000-0600	<ol style="list-style-type: none"> One (1) shared between Bremerton and Everett Acquire Permanent RFA 	N/A	N/A



Anchorage, AK

Anchorage (ANC) Lat/Lon = 61.178194, -150.016333; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required
2100-0600	<ol style="list-style-type: none"> No separation limit within a cluster. Interrogator testing in port permitted. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required



Interim

Alaska

Juneau, AK Lat/Lon = 58.358691, -134.584451; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Anchorage (ANC) Lat/Lon = 61.178194, -150.016333; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> 1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required
2100-0600	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA 	<ol style="list-style-type: none"> 1. No restrictions 2. No RFA required

Interim

Alaska



Interim Hawaii

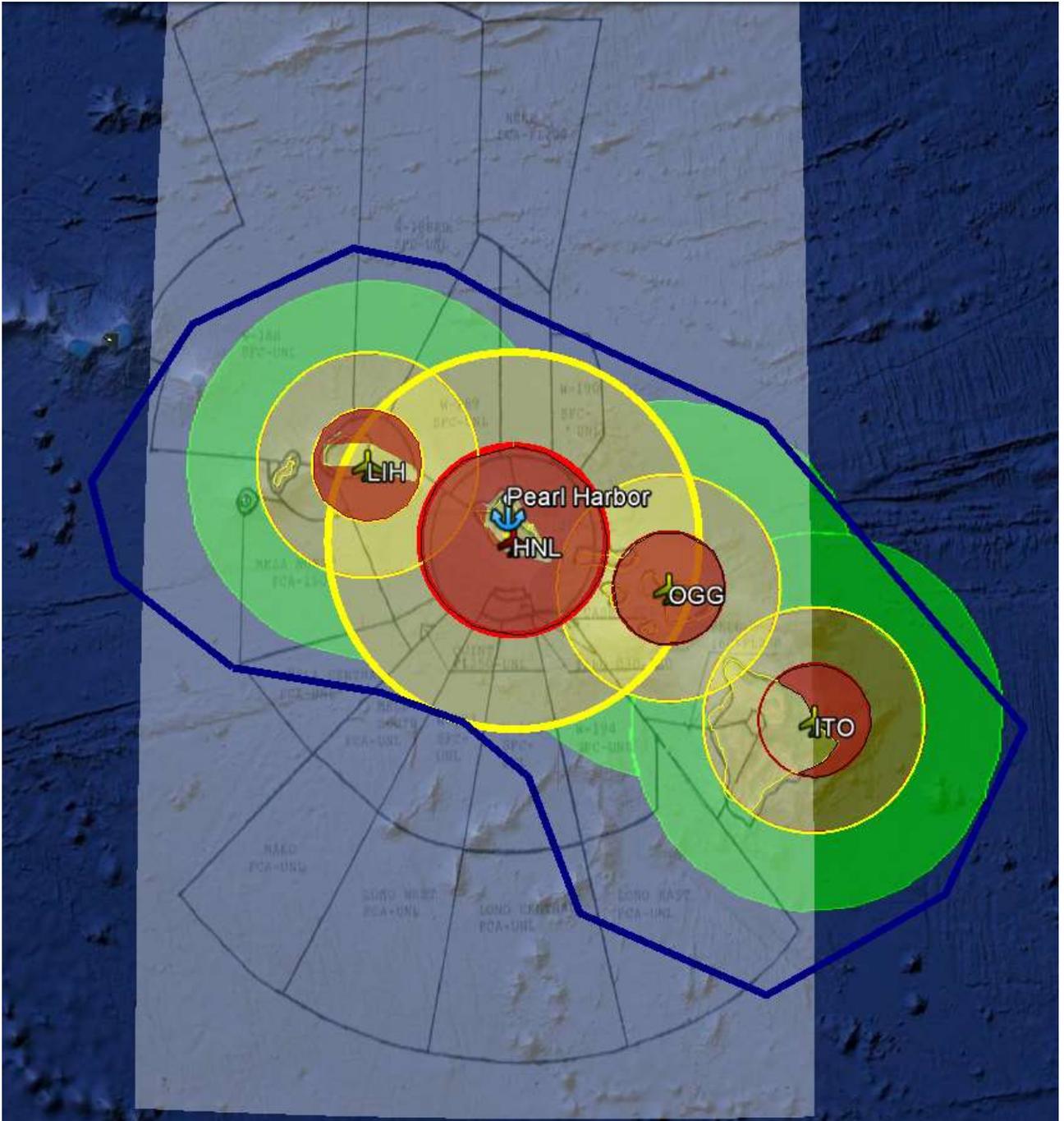
Honolulu (HNL) Lat/Lon = 21.3175, -157.928167; High Density				
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 250 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 250 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required
0000-0600	<ol style="list-style-type: none"> One (1) interrogator permitted Acquire Permanent RFA 	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required

Kahului (OGG) Lat/Lon = 20.894111, -156.429111; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	<ol style="list-style-type: none"> Interrogators within a cluster must be separated by 15 nmi. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 100 nmi Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required
2100-0600	<ol style="list-style-type: none"> No separation limit within a cluster. Interrogator testing in port permitted. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No separation limit within a cluster. Clusters must be separated by 25 nmi. Acquire Permanent RFA 	<ol style="list-style-type: none"> No restrictions No RFA required

Interim Hawaii

Hilo (ITO) Lat/Lon = 19.717194, -155.023944; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required
2100-0600	1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required

Uhue (Kauai) (LIH) Lat/Lon = 21.974861, -159.333389; Medium Density				
Time of Day	0 - 30 nmi (Red Area) "Restricted Zone"	30 - 60 nmi (Yellow Area) "Protected Zone"	60 - 100 nmi NTIA Boundary (Green Area) "Relaxed Zone"	Outside the NTIA Boundary (Blue Area) "Unprotected Zone"
0600-2100	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	1. Interrogators within a cluster must be separated by 15 nmi. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 100 nmi 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required
2100-0600	1. No separation limit within a cluster. 2. Interrogator testing in port permitted. 3. Clusters must be separated by 25 nmi. 4. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No separation limit within a cluster. 2. Clusters must be separated by 25 nmi. 3. Acquire Permanent RFA	1. No restrictions 2. No RFA required



Interim

Pearl Harbor, HI

Honolulu (HNL) Lat/Lon = 21.3175, -157.928167; High Density			
Time of Day	0 - 50 nmi (Red Area) "Restricted Zone"	50 - 100 nmi (Yellow Area) "Protected Zone"	100 nmi Ref Pt - 100 nmi NTIA (Green Area) "Relaxed Zone"
0600-0000	Special Temporary Authorization (STA) required to allow interrogator use [IAW: Section 8.3.31 of ref: (c)]	N/A	N/A
0000-0600	<ol style="list-style-type: none"> One (1) interrogator permitted Acquire Permanent RFA 	N/A	N/A

