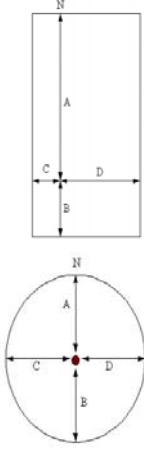


AIS ATON Details		
Applicant Details	Owner	Operator (if different)
Contact Name	Bill Benning	SAME
Title	Chief Technology Officer	
Organization	Marine Exchange of Alaska (MXAK)	
Address	1000 Harbor Way Suite 204 Juneau, AK 99801	
Office Phone	907-463-3937	
Mobile Phone	907-321-1832	
E-mail	billbenning@mxak.org	
E-Signature	William D Benning	

Attributes of the Physical AIS AtoN Station		
Seller, Make, Model & Date of Certification	L-3 PROTEC D SW rev.1.4A - AIS ATON	Provide the Seller, Make, Model & Date of (IEC 62320-2) Type Certification of the station.
Configuration method	1, 2, and 3	Denote how the station will be configured, i.e.: (1) standard presentation interface (PI) sentences (i.e. IEC 61162 series); (2) standard AIS AtoN configuration messages; and/or (3) proprietary sentences or binary configuration messages; and, whether via the AIS VHF Data-Link (VDL) and/or by other means. Denote the message(s) in the 'Additional Comments' section.
AIS AtoN Station Type	Type III dual channel	Denote AIS AtoN station type & whether dual or single channel (see IALA A-126). Default: Type III, dual channel.
UTC synchronization	Direct	Denote direct, indirect or semaphore (Types 3). Default: Direct
Transmit Power	12.5 W	Denote transmit power if defined by manufacturer. Default: 12.5 W
Transmitter capability	Type III	Denote (Type I and II only). Default: Type III
Receiver availability	7x24	Denote receiver on times. Default: Not applicable.
Power Source	Battery, UPS, charged from grid or solar panels – dependent on location	Denote main (i.e. electric utility, on-site generator, solar panels, rechargeable battery) and auxiliary (i.e. none, universal power supply, back-up generator) power source.
Chaining	N/A	If applicable, provide all MMSIs in the chain & the neighboring stations (parent and child) to this station. Default: Not applicable.
Message 21 content		
Parameter	Values (if other than Default)	Comment / description
Maritime Mobile Service Identity (MMSI)	ASSIGNED BELOW 9930320xx	To be provided by USCG, upon Aton approval.
Name of AtoN	See Below Under Additional Details & Concept of Operations	Denote 20 characters AtoN Name; & additional 14 characters may be added by using the Extended Name parameter.
Type of AtoN	Code 1- Reference Point	Denote the nature and type of AtoN (per IALA Buoyage System); see IALA A-126; Type Codes" 0-31. Note not the same as AIS ATON Station Type (i.e. Type I/II/III). Default=0=Type not specified.
Broadcasted [physical station] position	Lat: Long: See Below Under Additional Details & Concept of Operations	The latitude and longitude WGS84 position where the Physical AtoN Station will broadcasts from; MUST BE expressed in 1/10 000 of a minute of arc (i.e. 31.000001'N, 121.000001'W). For Virtual ATON Stations, provide positions, type & name in the Additional Detail section.

*** Approval is conditional upon broadcast authorization by the Federal Communications Commission (FCC); and, may be may revoked at anytime. The owner/operator shall cease broadcasts immediately if the station is not operating in accordance with the parameters set forth in this application; and, shall notify cgnav@uscg.mil.**

APPROVAL PERIOD 05.15.2014 to 03.31.2017

Dimension / Reference for Position	A=B=C=D=0 [Ref. Point]	
Type of electronic position fixing device (EPFS)	7= Surveyed Position	0 = Undefined (default); 1 = GPS; 2 = GLONASS; 3 = Combined GPS/GLONASS; 4 = Loran-C; 5 = Chayka; 6 = Integrated Navigation System ; 7 = surveyed; 8 = Galileo; 9-14 = not used;15 = internal DGNSS. Default=7=Surveyed Position. For fixed AtoN & virtual AtoN, the charted (surveyed) position should be used. The accurate position enhances its function as a radar reference target.
Off-position indicator / threshold	0 = On Position	If a floating aide, denote off-position threshold value (in meters); see IALA A-126. Default=0=On position.
AtoN status	0000000	Denote status indicators available on the AtoN; see IALA A-126. Default=0000000=Not specified.
RAIM capability	N/A	Denote whether EPFS RAIM capability. Default=0=RAIM not used.
Assigned mode flag	0	Denote station operating mode: 0 = Station operating in autonomous & continuous mode = default; 1 = Station operating in assigned mode. Default=0=Autonomous & continuous.
Transmitted messages, Access Mode & Reporting Rate		
<p>Denote each message that will be transmitted, i.e. 6, 8 (include DAC & FI, if assigned, 12, 14 (include the pre-formatted text in the Details section below), etc.</p> <p>Denote the Reporting Rate for each message. Message 21 transmission is required every 3 minutes alternating on AIS1 & AIS2; denote if message 21 reporting rate is different.</p> <p>Denote the Access Mode for each message: FATDMA, RATDMA, and/or CSTDMA. If FATDMA denote the configured assigned slots or the need for the USCG to provide such (which requires that a USCG Base Station is available in the intended area to reserve such slots).</p>		
Msg#/DAC/FI	Access Mode	Reporting Rate (indicate whether alternating channels)
21		Default: RATDMA, every 3 minutes, alternating on AIS1 & AIS2
8: DAC 367, TBD Environmental	RATDMA	Not to exceed 20 slots every minute, alternating on AIS1 & AIS2
8: DAC 367, FI 22 Geographic	RATDMA	Not to exceed 20 slots every minute, alternating on AIS1 & AIS2
8: DAC 001, FI 31 Environmental	RATDMA	Not to exceed 20 slots every minute, alternating on AIS1 & AIS2
8: DAC 367, FI 29 Linked Text	RATDMA	Not to exceed 20 slots every minute, alternating on AIS1 & AIS2
Additional Details & Concept of Operations		
<p><i>Indicate how & who will be configuring, deploying, monitoring, maintaining & using the station. Its concept & period of operation, etc.</i></p>		
<p>Deliver near real time weather information from multiple weather sensors to multiple AIS AtoNs for transmission over AIS VHF Data Link (VDL) using AIS Message 8. The weather sensor (AIRMAR Weather Station; 150MX) outputs apparent wind, true wind, barometric pressure, air temperature and heat index temperature in NMEA 2000 and NMEA 0183 data format. These data will be formatted in DAC 367, FI 33 Environmental and DAC 001, FI 31 Environmental Msg. 8 for transmission via AIS AtoN. Message 21 identifying the AtoN will be transmitted as required.</p>		

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APPROVAL PERIOD 05.15.2014 to 03.31.2017

Through the CRADA (MXAK/USCG), geographic notice and Message 21 for virtual AtoN will be transmitted. Geographic Notice will consist of one or more of the following: Caution: Protected Habitat, Restriction: Entry prohibited; Caution; Fishery – nets in water or Cluster of Fishing Vessels; Environmental Caution: Hazardous sea ice. Before transmitting a virtual AtoN using Message 21, MXAK will apply through USCG District 17 for proper authorization to create a new aid. If additional text information is required, DAC 367 FI 29 – Linked Text message will be used.

MMSI 9930320xx	Aton Name	Coverage Area	Latitude	Longitude	Site Sponsor	Antenna Structure	Antenna Height	Expected Deployme
07	Barrow	Arctic Ocean	71.32737	-156.680862	MXAK	Quonset hut roof structure	35ft AGL	July 2014
06	Prudhoe Bay	Arctic Ocean	70.222023	-148.419472	MXAK	Commercial Comm Tower	100ft AGL	July 2014
05	Wales	Bering Strait	65.605185	-168.085647	MXAK	2 nd Story building mast mount	35ft AGL	June 2014
04	Dutch Harbor	Bering Sea	53.919214	-166.509105	MXAK	Commercial Comm Tower	30ft AGL	June 2014
03	Anchorage	Cook Inlet	61.238839	-149.889115	MXAK	2nd story building mast mount	35ft AGL	May 2014
01	MXAK AtoN 1/Juneau	Gastineau Channel/Stephens Passage	58.285547	-134.389863	MXAK	Trylon Tower	50ft AGL	April 2014
02	MXAK AtoN 2/Homer	Cook Inlet	59.60206	-151.417436	MXAK	2 nd story building mast mount	35ft AGL	March 2014

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