

Oahu Civilian E9-1-1

Status Report

January 1, 2018 – January 31, 2018

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1. PSAP OPERATIONS

9-1-1 CALL VOLUME CIVILIAN PSAPS – JANUARY 2018

(Source:) West Safety Services Viper system

(*) Totals are based on calls to Primary PSAP.

9-1-1 Primary PSAP Call Volume																	
Honolulu City & County PSAPs		Wireline		Wireless				VOIP		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls	
2018	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	No. of Other Calls	% of Total Calls
January	90,131	18,612	20.65%	68,004	75.45%	46.10%	29.35%	3,380	3.75%	135	0.15%	1,940	2.15%	15,491	17.19%	528	0.59%

9-1-1 CALL VOLUME CIVILIAN PSAPS – CALENDAR YEAR 2018

9-1-1 Primary PSAP Call Volume																	
Honolulu City & County PSAPs		Wireline		Wireless				VOIP Calls		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2018	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	No. of Total Call Received	% of Total Calls
JAN	90,131	18,612	20.65%	68,004	75.45%	46.10%	29.35%	3,380	3.75%	135	0.15%	1,940	2.15%	15,491	17.19%	528	0.59%
FEB																	
MAR																	
APR																	
MAY																	
JUNE																	
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	90,131	18,612		68,004				3,380		135		1,940		15,491		528	
MON AVG	90,131	18,612	20.65%	68,004	75.45%	46.10%	29.35%	3,380	3.75%	135	0.15%	1,940	2.15%	15,491	17.19%	528	0.59%

NOTE:

- **911** Calls with No ALI for January 2018 = 0.15% - Statewide average for 2017 = 0.08%
- Total call volumes does not include Administrative Calls. Administrative calls = Calls originating on Administrative lines that required 911 service.
- Abandoned Calls represent the number of incoming 9-1-1 calls for which the caller had hung up before a call-taker answered. Dropped Calls are hang ups after transfers.
- Abandoned Calls are **not** included in the Wireline and Wireless total counts respectively.
- All VoIP (Voice over Internet Protocol) types of 911 calls are combined in the Call Volume statistic.

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9-1-1 CALL VOLUME BY AGENCY – JANUARY 2018

2018	9-1-1 Call Volume by Agency									
	Honolulu Police Department						Honolulu Fire Department			
	No. of Total Calls Received	% of Total Calls	Number of Emergency Calls	Number of Non Emergency Calls	Number of Admin Calls	Number of Dropped Calls	No. of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls
January	77,849	86.37%	19,571	41,680	1,107	15,491	2,881	3.20%	87	67

2018	9-1-1 Call Volume by Agency							
	Emergency Medical Services				Ocean Safety			
	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls
January	8,837	9.80%	710	125	36	0.04%	36	16

9-1-1 CALL VOLUME BY AGENCY – CALENDAR YEAR 2018

2018	9-1-1 Call Volume by Agency																	
	Honolulu Police Department						Honolulu Fire Department				Emergency Medical Services				Ocean Safety			
	Number of Total Calls Received	% of Total Calls	No. of Emergency Calls	No. of Non Emergency Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls
JAN	77,849	86.37%	19,571	41,680	1,107	15,491	2,881	3.20%	87	67	8,837	9.80%	710	125	36	0.04%	36	16
FEB																		
MAR																		
APR																		
MAY																		
JUNE																		
JULY																		
AUG																		
SEPT																		
OCT																		
NOV																		
DEC																		
YTD	77,849		19,571	41,680	1,107	15,491	2,881		87	67	8,837		710	125	36		36	16
MON AVG	77,849	86.37%	19,571	41,680	1,107	15,491	2,881	3.20%	87	67	8,837	9.80%	710	125	36	0.04%	36	16

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PSAP OPERATION NOTES:

- Total call volumes does not include Administrative Calls. Administrative calls = Calls originating on Administrative lines that required 911 service.
- Abandoned Calls represent the number of incoming 9-1-1 calls for which the caller had hung up before a call-taker answered. Dropped Calls are hang ups after transfers.
- Abandoned Calls are included in the Wireline and Wireless total counts respectively.
- All VoIP (Voice over Internet Protocol) types of 911 calls are combined in the Call Volume statistic.

FOR YOUR INFORMATION

FYI For Your Information						
PSAP Operations						
Statewide 911 Call Volumes						
PSAP	2017		2016		2015	
Oahu Civilian	1,022,818	72.16%	1,009,059	71.93%	1,019,402	70.94%
RDC Pearl Harbor	27,916	1.97%	N/A	N/A	N/A	N/A
Hawaii County	193,166	13.63%	205,412	14.64%	217,768	15.15%
Maui County	123,685	8.73%	137,333	9.80%	142,952	9.95%
Kauai County	49,902	3.52%	50,955	3.63%	56,874	3.96%
Total	1,417,487	100.00%	1,402,759	100.00%	1,436,997	100.00%
2016 & 2015 Statewide average does not include Military 911 calls.						

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TEXT TO 911 OAHU CIVILIAN PSAPS – CURRENT MONTH – JANUARY 2018

NOTE:

- Although there is a “Text to 911” plot on the MapFlex, the location of the plot is not reliable. Text to 911 Dispatchers should use their skills to ascertain the exact location of the emergency response.

TEXT TO 911 Oahu Civilian PSAPs 2018						
Month	Total	HPD	HFD	EMS	OS	911 (handled)
January	145	115	3	0	0	27
February						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
YTD	145	115	3	0	0	27
Monthly Avg.	145.0	115.0	3.0	0.0	0.0	27.0

NOTE:

The 9-1-1 handled texts were incidents in which the Division conducted testing or the texter texted 911 in error.

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911 WIRELESS OAHU CIVILIAN PSAP TESTING – JANUARY 2018

OAHU CIVILIAN - JANUARY 2018						
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:
1/17/2018	Verizon	1	3	HPD PSAP	Pass	
1/25/2018	AT&T	1	12	HPD PSAP	Fail	re-scheduled
1/26/2018	AT&T	1	12	HPD PSAP	Pass	

NOTES:

- There were three (3) scheduled Wireless 911 Test for the Oahu Civilian PSAP in January 2018.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

OAHU CIVILIAN MSAG TRANSACTIONS CURRENT MONTH/YEAR – JANUARY 2018

OAHU CIVILIAN	9-1-1 TRANSACTIONS								
	Total	MSAG	ALI Submitted			Open ALI Discrepancy Records			Customer Addresses Affected
2018		MSAG (A)	TN CR (B)	ALI DR (C)	VoIP (D)	TNCR	ALI DR	VoIP DR	
JANUARY	33	14	19	0	0	0	0	0	1,198
FEBRUARY									
MARCH									
APRIL									
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL YTD	33	14	19	0	0				1,198
AVG PER MONTH	33	14	19	0	0				1,198

Definitions

- (A) **Master Street Address Guide** - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.
- (B) **Telephone Number Change Request** - Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 199 attached to them which indicates the need for validation.
- (C) **Automatic Location Information Discrepancy Record** - Represents an address discrepancy discovered during a live 9-1-1 call, from a landline. These record corrections are treated with a higher priority and should be processed within 48 hours as a general guideline.
- (D) **Voice over Internet Protocol Discrepancy Record** - Represents an address discrepancy discovered during a live 9-1-1 call, from a VoIP phone. These record corrections are treated with a higher priority and should be processed within 72 hours as a general guideline per Time Warner Operations Center. MSR tracking effective April 2014.

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OAHU CIVILIAN MSAG CURRENT MONTH NOTES:

A total of thirty-three (33) MSAG transactions were processed in 9-1-1 Net during the current reporting month. Fourteen (14) requests were processed relating to the MSAG database which include: changes to high – low street ranges, combining street records, deletion of invalid records, splitting street records to align with Police, Fire, EMS and Military response areas, and inserting new MSAG records.

There were **1,198** customer ANI/ALI (telephone/address) records updated as a direct result.

OAHU CIVILIAN TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

Nineteen (19) Telephone Number Change Requests (TN CR) transactions were processed in 9-1-1 Net with valid MSAG addresses, as a result of the ESN 199 clean-up effort. ESN 199 TN CRs must be validated against HT records and approved by the end user Hawaiian Telcom customer before updating the ALI record.

OAHU CIVILIAN OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are no Open TN CR Transactions as of January 31, 2018**
- **There are no Open ALI-DRs as of January 31, 2018**
- **There is no Open VoIP DRs as of January 31, 2018**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – JANUARY, 2018

NOTE:

- 9-1-1 NET is a secure web-based application that provides access to request changes to the MSAG, ALI, TN, and ESN/ELT data supported and maintained by West Safety Services for the Telephone Company (TelCo).
- TNCRs are not requests to change Telephone Numbers (TNs); however, it is a corrective process within 9-1-1 NET to modify location information associated with an Automatic Location Identification (ALI) record to a valid MSAG address for 9-1-1 purposes.

PSAP 9-1-1 Telephone Number Location Change Request (Telephone Number Change Request (TNCR) Status)				
PSAP	TOTAL TNCR RECORDS SUBMITTED BY AKIMEKA	OPENED TNCRS PENDING FURTHER ACTION BY INTRADO	OPENED TNCRS REFERRED TO TELCO BY INTRADO	TOTAL UNOPENED TNCR RECORDS
OAHU CIVILIAN	1	0	1	0

STATUS
TOTAL TNCRs SUBMITTED - The total number of TNCR requests for modification that have been submitted in 9-1-1
PENDING STATUS - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service Provider Data Analyst, and are pending investigation whether the request is valid or invalid, and/or whether the request requires additional information to validate.
REFERRED STATUS - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service Provider Data Analyst, and the request requires additional information to validate. The West Safety Services Data Analysts assigns this status to a TNCR and the request is referred to the telephone service providers for further research.
TOTAL UNOPENED TNCR RECORDS STATUS - The request is submitted by Akimeka on behalf the PSAP; however, processing by the 9-1-1 Database Service Provider Data Analyst has not begun.

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SPECTRUM (CHARTER) 9-1-1 VOIP DATABASE VERIFICATION PROJECT – JANUARY 2018

Akimeka received the Automatic Location Identification (ALI) records from Spectrum (formally known as Charter Communications) which is the predominant Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka has access to these ALI Records, Akimeka is researching and verifying the VoIP records against an MSAG valid address and the GIS data. This research is a validation of the ALI Record to ensure that the location as provided by the VoIP provider matches the GIS Information utilized by the Public Safety Agencies within their specific County 9-1-1 Service Area. This validation reduces the potential of address or location dispute during a 9-1-1 call.

The analysis of the database records indicates that there are invalid MSAG addresses utilized by the VoIP Provider. These records are being identified, and will be sent back to Spectrum for corrective action.

*Spectrum (Charter) 9-1-1 VoIP Database Verification Project					
PSAP	TOTAL RECORDS SUBMITTED BY SPECTRUM (A)	TOTAL RECORDS MATCHING & VERIFIED WITH 911 DATABASES (B)	TOTAL RECORDS NOT MATCHING	NON MATCHING RECORDS CORRECTED BY AKIMEKA (C)	PERCENT COMPLETED
HAWAII County	22,044	21,638 (98%)	406	406	100.00%
KAUAI County	8,936	8,695 (97%)	241	241	100.00%
MAUI County	18,256	17,517 (96%)	739	739	100.00%
OAHU Civilian	87,414	85,329 (98%)	2,085	519	24.89%
OAHU Military	3,663	710 (19%)	2,953	2,397	81.17%
TOTAL	140,313	**133,889	6,424	4,302	81.2%

* Spectrum VoIP Database received on June 21st, 2017

** Akimeka provided VoIP Records with Latitude/Longitude coordinates

(A)	VoIP Database records submitted by Spectrum to Akimeka for research and MSAG address validation.
(B)	Akimeka has researched and verified the VoIP record against an MSAG valid address and GIS data. Akimeka is tracking corrections needed to be performed by Spectrum. Addressing data will be updated or added in the GIS if the VoIP record is determined to be valid.
(C)	Verification Process Completed.

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3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – JANUARY 2018

MAPPING LAYERS UPDATED (PART I)

9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

OAHU CIVILIAN PSAPS				
Type of Layer	Akimeka GIS Server	Date GIS Delivered	Other/Remarks	
	Date Created/ Edits Performed			
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)				
Address Points	1/31/2018		Corrected Zip Codes for sixteen (16) Address Points in Mililani.	
	1/31/2018		Added twelve (12) Address Points at Kipapa Acres in Waipio.	
	1/30/2018		Spatially corrected eight (8) Address Points at Kipapa Acres in Mililani.	
	1/30/2018		Corrected TMK's for eight (8) Address Points at Kipapa Acres in Mililani.	
	1/30/2018		Added two (2) Address Points in Kapolei.	
	1/26/2018		Spatially corrected, added name, location type, building, floor and apartment number for one hundred seventy-three (173) Address Points in McCully for Iolani School.	
	1/26/2018		Added one hundred seventy-one (171) Address Points in McCully for Iolani School.	
	1/25/2018		Added eighty (80) Address Points in Makakilo for Kai Nani at Makakilo condos.	
	1/25/2018		Spatially corrected ninety-six (96) Address Points in Makakilo for Kai Nani at Makakilo condos.	
	1/25/2018		Added name, location type, building, floor and apartment number for ninety-six (96) Address Points in Makakilo for Kai Nani at Makakilo condos.	
		01/19/18		
	1/12/2018		Added twenty-eight (28) street name aliases in Manoa, per item identified by EMS	
	1/12/2018		Added one (1) Location Name in Waipio	
	1/11/2018		Corrected two (2) Location Names in Waikiki	
1/11/2018		Corrected one (1) Location Name in Kalihi		
	01/05/18			
Airports				
AMR Response Areas				
Bridges				
Building Footprints				
Bus Stops				
Churches				
Coastal Names				
Coastline				
Common Places	1/31/2018		Spatially corrected six (6) POI in Waimanalo.	
	1/29/2018		Corrected spatial and modified MSAG Community for one (1) POI in Kahala.	
	1/29/2018		Corrected spatial one (1) POI in Nanakuli.	

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MAPPING LAYERS UPDATED (PART II)

9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

OAHU CIVILIAN PSAPS			
Type of Layer	Akimeka GIS Server	Date GIS Delivered	Other/Remarks
	Date Created/ Edits Performed		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Common Places	1/24/2018		Added one (1) new CP in Kalihi.
	1/24/2018		Modified MSAG Community for one (1) POI in Moanalua Valley.
		01/19/18	
	1/19/2018		Spatially corrected seventeen (17) locations in Waikiki
	1/12/2018		Added one (1) new Common Place in Kapolei
	1/12/2018		Added one (1) new Common Place in Airport
	1/11/2018		Spatially corrected four (4) locations in Kalihi
	1/11/2018		Corrected two (2) Names in Waikiki
	1/9/2018		Corrected one (1) address in Kailua
	01/05/18		
Correctional Facilities			
Emergency Callboxes			
Emergency Operation Centers			
Emergency Shelters			
ESZ/ESN			
Fire Beats			
Fire Districts			
Fire Response Areas			
Fire Stations			
Food & Beverage			
Gas Stations			
Gate Codes			
Government Buildings			
Harbors			
Helipads			
Hiking Trails			
Hospitals			
Hydrants			
Hyrdology Layers			
Incident Response Areas			
Lodging			

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MAPPING LAYERS UPDATED (PART III)

9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

OAHU CIVILIAN PSAPS			
Type of Layer	Akimeka GIS Server	Date GIS Delivered	Other/Remarks
	Date Created/ Edits Performed		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Major Roads			
Medic Beats			
Medic Districts			
Medic Response Areas			
Medic Stations			
Medical Facilities			
Milepost Markers			
Military Response Areas			
MSAG Communities			
Net Junctions			
Ocean Rescue Boundaries			
Ocean Safety			
Parcels			
Parks			
Parks Polygon			
Points of Interest			
Police Beats			
Police Districts			
Police Response Areas			
Police Stations			
Post Offices			
Schools			
Street Centerlines	1/31/2018		Corrected One Way codes for four (4) segments in Airport.
	1/31/2018		Split one (1) street segment in Airport.
	1/30/2018		Modified range for one (1) segment in Kapolei.
	1/29/2018		Flipped two (2) streets in Waikele.
	1/29/2018		Modified range for one (1) street in Waikele.
	1/29/2018		Modified range for one (1) street in Nanakuli.
	1/29/2018		Modified range for one (1) street in Kapolei.
	1/29/2018		Modified range for one (1) street in Waipahu.
	1/24/2018		Modified MSAG Community for one (1) segment in Nanakuli for Farrington Hwy.

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MAPPING LAYERS UPDATED (PART IV)

9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

OAHU CIVILIAN PSAPS				
Type of Layer	Akimeka GIS Server	Date GIS Delivered	Other/Remarks	
	Date Created/ Edits Performed			
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)				
Street Centerlines	1/23/2018		Corrected speed to one hundred ninety-nine (199) segments - all city streets in Nanakuli that were previously 30 MPH have been updated to 25 MPH.	
	1/23/2018		Corrected speed to seven hundred eighty (780) segments - all city streets in Kapolei that were previously 30 MPH have been updated to 25 MPH.	
	1/22/2018		Flipped three (3) streets in Waikiki.	
	1/22/2018		Corrected range of two (2) streets in Kakaako.	
		01/19/18		
	1/19/2018		Corrected twelve (12) street names in Kapolei	
	1/12/2018		Added two (2) street name aliases in Manoa, per item identified by EMS	
	1/11/2018		Corrected speed to two hundred eight (208) street segments in Maili	
	01/05/18			
Subdivisions				
Tow Jurisdictions				
Tsunami Evacuation Zones				
Tsunami Heights				
Waste Water Plants				
WSP Cell Sectors	1/22/2018		Per SPPCS CRS	
		01/19/18		
	1/16/2018		Per VZW CRS	
	1/9/2018		Per SPPCS CRS	
	1/8/2018		Per ATTMO CRS	
	01/05/18			
WSP Cell Towers	1/22/2018		Per SPPCS CRS	
		01/19/18		
	1/16/2018		Per VZW CRS	
	1/9/2018		Per SPPCS CRS	
	1/8/2018		Per ATTMO CRS	
	01/05/18			

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GEOGRAPHIC INFORMATION SYSTEM (GIS) NARRATIVES

GIS KEY ACTIVITIES/UPDATES

- GIS Key activities include the events such as GIS deliverables, meetings, agreements, etc.

Date	Key Activities/Updates
1/19/2018	Street Centerlines, Common Places, Police Beats, MSAG Communities to HPD for Motorola CAD
1/19/2018	Street Centerlines, Address Points, Fire Response Areas, Medic Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for TriTech CAD
1/19/2018	Address Points, Common Places, Street Centerlines, Police Response Areas, Fire Response Areas, Medic Response Areas, Ocean Safety Response Areas, ESN, MSAG Communities, Cell Towers, Cell Sectors to the Honolulu MapFlex system for HPD, HFD, EMS, and Ocean Safety
1/19/2018	Address Points, Street Centerlines, Common Places, Fire Response Areas, Medic Response Areas, Ocean Safety Response Areas, AMR Response Areas to AMR for TriTech CAD
1/5/2018	Street Centerlines, Common Places, Police Beats, MSAG Communities to HPD for Motorola CAD
1/5/2018	Street Centerlines, Address Points, Fire Response Areas, Medic Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for TriTech CAD
1/5/2018	Address Points, Common Places, Street Centerlines, Police Response Areas, Fire Response Areas, Medic Response Areas, Ocean Safety Response Areas, ESN, MSAG Communities, Cell Towers, Cell Sectors to the Honolulu MapFlex system for HPD, HFD, EMS, and Ocean Safety

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MAPFLEX SYSTEM

During the month of January 2018, the MapFlex system received updates manually as a result of MapFlex having several issues pertaining to the automated upload processes.

Considering that the MapFlex initiative being provided by Hawaiian Telecom and sub-contractor, West, was implemented across the State of Hawaii, in the below narrative there is some information pertaining to all of the Hawaiian Islands. For a record of historical information regarding the MapFlex system, please see MSRs during the 2015 through 2017 years.

1. Akimeka delivered GIS data to the MapFlex system on the following dates in January 2018
 - a. **Hawaii County** – January 2nd, 2018, January 16th, 2018 and January 30th, 2018
 - b. **Maui County** – January 3rd, 2018, January 17th, 2018 and January 31st, 2018
 - c. **Kauai County** – January 4th, 2018, and January 18th, 2018
 - d. **Honolulu** – January 5th, 2018, and January 19th, 2018

MAPFLEX ISSUES

Below is a detailed list of issues regarding the MapFlex systems throughout the State of Hawaii.

DATE	ISSUE	DESCRIPTION	STATUS
8/2016	Wireless Addresses	MapFlex system began displaying wireless information incorrectly. MapFlex system is doing a reverse query for additional information in the GIS and this is overriding the ALI information with the closest address in the GIS.	Partially Resolved (Nov 2016) The overriding ALI with updated Lat/Longs from the GIS is still occurring
11/2016	Phase I Display	Wireless Phase I calls plotting at centroid of coverage area and landing in the ocean. After installation of new MapFlex version to correct other issues, the configurations for Wireless Phase I were not set up properly by West, in which the mapping did not point to the correct information in MapFlex.	Partially Resolved (Dec 2016) According to PSAPs, it's not fully resolved. The icon of the tower still doesn't plot for Phase I.
11/2016	Wireless Confidence	Sprint calls coming across with unusually high confidence. Coordination is taking place with Sprint and West. West provides the PDE services for Sprint.	Pending
3/22/2017	ArcGIS Address Locator	The locators in MapFlex have a configurations which does not include ESNs. A reported issue has occurred with the Sheraton in Waikiki. The address locator does not differentiate between the Sheraton hotel and the surf break and plots on the surf break. The bigger issue is that this same issue will occur with complexes that have same primary address.	Pending A new SP 5.4 update by West is aimed to correct this issue.

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5/17/2017	VoIP Calls Plotting Incorrectly	Recognized in late April and early May 2017, the PSAPs have been receiving several VoIP calls which are plotting in the incorrect locations. After further research it was determined that it is because MapFlex is configured to plot the received Lat/Long. The problem is that these are not always maintained properly and that ideally the system should first choose to match with the GIS data based on the provided address. During the September 20, 2017 PSAP conference call, HT relayed there was confirmation that the Time Warner records were in fact passing through the West FMCC.	Partially Resolved – the Lat/Longs are no longer being plotted in MapFlex due to a software release.
5/17/2017	Landline Calls Producing X/Y on calls	It was determined that for normal landline calls, the X/Y coordinates are being sent. The PSAPs have asked where these are being generated and why would they be sent for landline calls.	West is looking into this (May - June 2017)

STREET UTILITY CHECK

This is an ongoing project to correct the errors identified. A comparison of the raw CAD generated report from the Street Check Utility was performed between the Street Centerline GIS data on December 22, 2017 and January 23, 2018.

Street Utility Check				
	First Report 06/01/13	12/22/2017	1/23/2018	Improvements/Corrections
Total Number of GIS Records	26,602	30,917	30,943	Increased by 26 records
Errors Identified				
Zero Errors	5,112	5	4	Decreased by 1 error
Low > High Errors	3	0	0	No change
Mixed Parity Errors	1	0	0	No change
Changed Parity Errors	105	0	8	Increased by 8 errors
Address Gap Errors	2,629	2	2	No change
Address Overlap Errors	423	1	6	Increased by 5 errors
Flipped Link Errors	1,030	17	6	Decreased by 11 errors
Total Errors	9,303	25	26	Increased by 1 error

In addition to Akimeka’s internal validation tools, Akimeka will continue to utilize the various CAD reports to further identify and correct the multitude of discrepancies in the GIS data. This is an ongoing and routine process which Akimeka has been using to improve the accuracy of the GIS data for Public Safety.

As a result of the GIS efforts within the military jurisdictional areas covered primarily by the RDC, the GIS data is undergoing several changes within the bases which will cause a fluctuation in the Street Check results, which is to be expected. Any discrepancies that are identified will be corrected in the following GIS deliverable.

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TRITECH CAD ADDRESS POINT PROJECT

During the month of May 2017, HFD and Akimeka worked closely to begin testing whether utilizing Address Points in their system would overall improve the 911 operation. Currently the HPD Common Place point data is loaded into the CAD system as a locatable layer and there are display Address Points used for visual only.

The purpose of this project is to test a new load of Address Points which contains the Common Place locations and also including all residential addresses which Akimeka has been correcting/adding over the previous 5 years. The new “combined” Address Points were first delivered to HFD on May 12th. Since that time, HFD and Akimeka has performed various updates to allow for them to operate best in the TriTech CAD. The most recent update included adding the apartment information into the Location Name field so that it would provide a dropdown list for the call taker to choose from.

The updates are still being tested and it is expected that there will continue to be additional iterations between HFD and Akimeka until the best possible dataset is utilized.

Throughout January 2018, there were no issues reported although there was some collaboration with EMS on school campuses and the work Akimeka is currently doing to address each of the room numbers.

SPEED LIMIT UPDATES

Beginning in April 2017, and now that the Street Centerline data has achieved not only an above 98% synchronization rating but also a high degree of accuracy in the spatial accuracy, a new project to correct speed limits has begun. The project is beginning in Waimanalo and continuing in a counter-clockwise patten around the island of Oahu. The initial focus is on Highways, Freeways, and other major roads, but also not limited to additional corrections, especially those which are immediately identified to positively impact vehicle routing, etc.

All updates are shared directly with the PSAPs and the agency most affected (positively) is HFD since they actively use vehicle routing and this will assist in better CAD unit recommendations. During each GIS deliverable, a list of updates are being provided.

1. During April 2017, Akimeka corrected seven (7) highway streets in Waimanalo
 - a. In addition, other segments of Kalaniana'ole Hwy were verified in the process throughout Waimanalo
2. During May 2017, Akimeka corrected seventy (70) highway, freeway, and other major road segments throughout Kailua and a small portion of Kaneohe.
3. During June 2017, Akimeka corrected an additional 22 major streets in Kailua, 120 in Kaneohe, and 1,292 city streets from the default of 30 MPH to 25 MPH.
4. During July 2017, Akimeka corrected an additional 21 major streets/highways, and an additional 1,091 city streets were updated.
5. During August 2017, Akimeka corrected an additional 154 street segments across Kahaluu and Kaaawa.
6. During September 2017, Akimeka corrected an additional 157 segments throughout Kaaawa, Punaluu, and Hauula.
7. During October 2017, Akimeka corrected 242 segments in Laie, and Kahuku.
8. During November 2017, Akimeka corrected an additional 198 segments in Sunset, and Haleiwa.
9. During December 2017, Akimeka corrected an additional 832 street segments in Haleiwa, Mokuleia, Waialua, Makaha, Waianae, Maili, and Nanakuli.
10. During January 2018, 1,187 segments were updated in Maili, Nanakuli, and Kapolei.

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HONOLULU EMS RESPONSE AREA

During the month of December 2017, EMS requested a high resolution map of the Honolulu Response Area which will likely be divided into 5 separate response areas to better support the EMS operations and ambulance response times.

1. With HPD's approval, Akimeka prepared a map of the requested area and provided to EMS on December 12, 2017.
2. Considering the additional response areas will certainly require the creation of additional ESZ/ESNs; HPD, EMS, and Akimeka will be coordinating so that the project can be mapped out on a timeline so that the changes can take place while maintaining an above 99% synchronization level between GIS, MSAG, and ALI.
3. An operational consideration has already begun a discussion, in that the military ESNs will likely be reallocated to a new numbering so that both civilian and military responses will have enough ESNs to support their individual operations.
4. During the first quarter of 2018, there will be further discussion on the creation of the new Response Areas, allocation of military ESNs, and create of new ESZs/ESNs.

AMR-H

The American Medical Response Hawaii (AMR-H) Project is a joint venture by the Honolulu Emergency Services Department (HESD) to provide accurate address and location information to its other public safety agencies. This project is to ensure AMR-H is utilizing the same address and location information as the other HESD public safety agencies, and to ensure compliance with National 9-1-1 directives such as the FCC Docket 15-9 regarding location accuracy. The intent is to provide the same accurate location information to all the HESD public safety response agencies to help reduce response times to the 9-1-1 caller.

NOTE:

This work is performed under a separate contract.

AMERICAN MEDICAL RESPONSE (AMR) HAWAII PROJECT

Since the start of the GIS deliverable schedule with AMR, there have been no reported issues or concerns. In order to open up discussion on any operational improvements via the GIS data, or to identify any updates that can be made, AMR and Akimeka held a brief conference call on December 5, 2017.

1. During the discussion there was overwhelming agreement that the data provided by Akimeka is working great for the dispatchers and first responders at AMR.
2. There were some areas that were discussed where searching for certain addresses will prompt a list of invalid addresses.
 - a. Through the discussion it was identified that the CAD system is aggregating various data sources since they are dispatching throughout the State. The data that Akimeka provides for the island of Oahu is working great, however since the neighbor islands are using various sources of data in different formats, the accuracy of that data is greatly in question and is likely not fully supportive of the search requirements in the CAD.
3. A final topic of discussion was on training for the AMR dispatcher. Joe from AMR who was on the call, took this as an action item to prepare training material for searching criteria, especially intersections. Akimeka volunteered that they can make themselves available to collaborate on the training material if needed.
4. There are no follow up calls scheduled at this time, however Akimeka informed that any issues or improvements identified will be looked at immediately and to send the requests as they are identified.

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4. E9-1-1 OAHU CIVILIAN DATABASE SYNCHRONIZATION

(Reference: NENA 71-501, Version 1.1 – NENA Information Document for Synchronizing Geographic Information System databases with MSAG & ALI)

As part of Akimeka's value added services, Akimeka conducted a database synchronization audit for the Oahu Civilian PSAP on January 1, 2018.

The database synchronization effort included comparing Oahu Civilian's 9-1-1 MSAG received from the 911 Database provider, West Safety Servicers on January 1, 2018, against the PSAP's 911 GIS Street Centerline data. A total number of **7,791** 9-1-1 MSAG records were reviewed in the audit and analyzed. Results of the database synchronization audit completed on January 1, 2018 for the Oahu Civilian PSAP are reported below.

Database synchronization should be part of an ongoing and continuous process to ensure that the databases remain current and synchronized. Since neither database is static in nature, the synchronization process will never yield a 100 percent match rate. As such, NENA's recommended minimum match rate is 98%.

The database synchronization process is essential to monitor and ensure the level of accuracy of the E9-1-1 databases and prepare for Next Generation 9-1-1 (NG9-1-1). As such, Akimeka will perform database synchronization audits on a quarterly basis as part of its ongoing maintenance process. Results of the database synchronization audit will be included and reported in the Monthly Status Report (MSR) accordingly.

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AUDIT SUMMARY RESULTS – 2018 - 2017

9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS	Notes	As of April 1, 2017		As of July 1, 2017		As of October 1, 2017		As of January 1, 2018	
		9-1-1 MSAG Dated 4-01-17		9-1-1 MSAG Dated 7-01-17		9-1-1 MSAG Dated 10-01-17		9-1-1 MSAG Dated 1-01-18	
		# of Records	%	# of Records	%	# of Records	%	# of Records	%
Total 9-1-1 MSAG Records Reviewed		7,774		7,782		7,783		7,783	
Less: 9-1-1 MSAG Exception Records	(1)	35	0.5%	35	0.4%	35	0.4%	35	0.4%
Net 9-1-1 MSAG Records Eligible for Comparison		7,739		7,747		7,748		7,748	
Total 9-1-1 MSAG Records Match (9-1-1 MSAG -- GIS Match -- No Corrections Required)		7,732	99.9%	7,738	99.9%	7,737	99.9%	7,737	99.9%
9-1-1 MSAG -- GIS No Match - Minor Correction Required	(2)	2	0.0%	6	0.1%	8	0.1%	8	0.1%
9-1-1 MSAG Record With No Matching GIS Record	(3)	4	0.1%	3	0.0%	3	0.0%	3	0.0%
Total 9-1-1 MSAG Records No Match		6	0.1%	9	0.1%	11	0.1%	11	0.1%

Objective: NENA Recommended Match Rate = 98%

The two-way (MSAG – GIS) database synchronization audit for the City & County of Honolulu (Civilian PSAPs) was completed as scheduled. The match rate remained consistent from October 2017 with a 99.9% Match Rate to a 99.9% Match Rate as of January 2018.

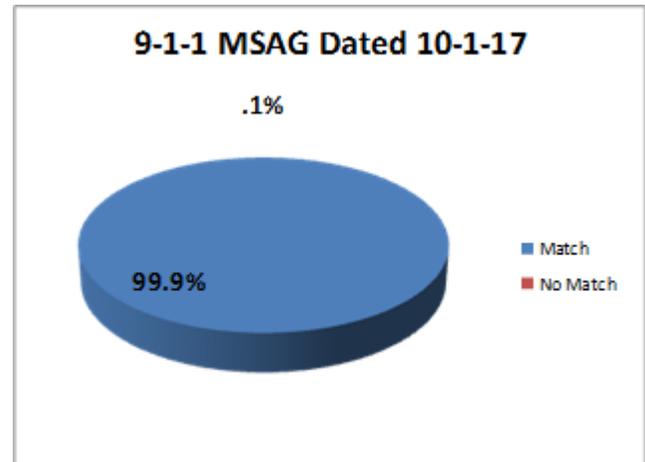
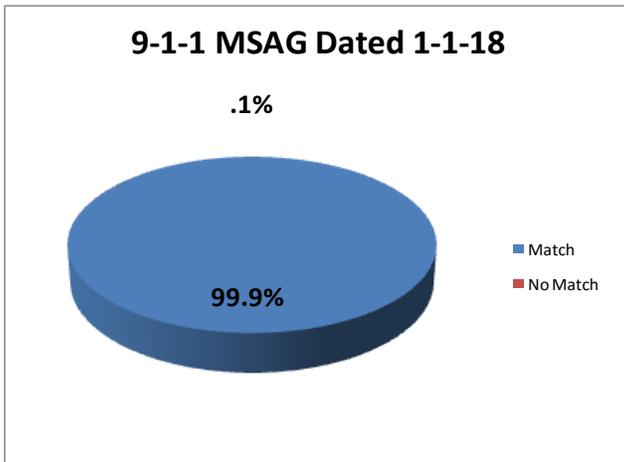
NOTES:

- (1) An MSAG Record that will not have a corresponding GIS Street Centerline Record but is required for the routing of E9-1-1 calls (i.e., Emergency Call Box, Foreign Exchange Records, Wireless Shell Records, etc.). No further action is required.
- (2) An MSAG Record that requires minor MSAG attention in 9-1-1Net to correct MSAG Records (i.e., Reassignment of an MSAG Community, modification of the Site Address Range, assignment of an ESN, performing a combine or insert of an existing MSAG Record, etc.).
- (3) An MSAG Record that does not have a corresponding GIS Record and will require additional research and validation. The GIS Section will assist with this effort.

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AUDIT SUMMARY RESULTS – JANUARY 1, 2018 MSAG VS. OCTOBER 1, 2017 MSAG



Oahu Civilian’s level of accuracy or 9-1-1 Match percentage remained consistent with a 99.9% as of January 1, 2018 compared to 99.9% as of October 1, 2017.

- ❖ As agreed between HPD PMT and Akimeka, Akimeka would initially focus on the existing MSAG and GIS records to produce a match which will benefit the PSAP in the interim.
- ❖ This effort would not include the MSAG Communities project to implement the new MSAG Communities and associated GIS Street Centerlines. This would be handled as a separate project as identified and agreed to.
- ❖ As a result of the MSAG Community and Street Segment Sweep project, the majority of the remaining discrepancies resides in the Honolulu MSAG Community and will be addressed during the Phase V effort.
- ❖ The previously completed MSAG Communities as a result of the MSAG Community and Street Segment Sweep project are now considered part of ongoing maintenance.

“MSAG - GIS Minor Corrections” increased (8 to 9) from October 2017 to January 2018. Low and high address ranges, odd/even combines, and street suffixes were adjusted in the MSAG to correspond with the GIS record. Although identified as a minor correction, customer telephone numbers (TNs) must be validated in 9-1-1Net prior to correcting the MSAG record to ensure the correction will not result in an orphan ALI Record or TN Fall-out.

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AUDIT SUMMARY RESULTS JANUARY 1, 2018 MSAG VS. OCTOBER 1, 2017 MSAG CONTINUED

- ❖ MSAG Record with No GIS Record” remained the same (3 to 3) from October 2017 to January 2018. MSAG records with no matching record were due primarily to the verification of the MSAG records against multiple GIS databases to determine if the roads are existing within City and County Honolulu.
- ❖ “GIS MSAG Records with No Matching E9-1-1 MSAG Record” decreased (15 to 11) from October 2017 to January 2018. Records with no matching record was due primarily to the verification of the MSAG records against the single source 9-1-1 GIS databases created by Akimeka from the multiple public safety agencies’ databases to determine if the roads exist within City & County of Honolulu and Military bases GIS records.
- ❖ “GIS –Minor Corrections” decreased (14 to 10) from October 2017 to January 2018. Low and high address ranges, street suffixes, and MSAG Community were adjusted in the GIS database to correspond with the MSAG record. The non-match condition is also a result in which MSAG transactions were not completed prior to the running of the end of month report.
- ❖ A constant effort to keep the databases synchronized and maintained are required to improve the level of accuracy of the E9-1-1 databases each time an MSAG or GIS record is “last modified”.
- ❖ Accurate location and GIS information will ensure proper dispatching and response in a timely manner for all Public Safety agencies.

All the hard work to maintain and synchronize the E9-1-1 databases is validated when a life and/or property is saved.

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INVALID MSAG STREETS AND ADDRESS RANGES – ESN X99 RECORDS

At the request of the Kauai County and Hawai'i County Chief of Police, Hawaiian Telcom, Inc. (HTI) provided all State of Hawai'i PSAPs and Akimeka, as the PSAP's agent, with access and visibility to the ESN x99 MSAG records which are "known" invalid streets and address ranges. Akimeka will be investigating and reporting on these ESN x99 MSAG records as a separate project and add-on to the Database Synchronization quarterly report.

Results of the Oahu Civilian data provided are as follows:

OAHU CIVILIAN	Invalid MSAG Records	
	9-1-1 MSAG Dated 01-01-18	
	Number of Records	% of Total Invalid MSAG Records
ESN 199	12	0.2%

These invalid MSAG records represent **0.2%** of the Total MSAG records for the City & County of Honolulu as of the January 1, 2018 MSAG. The individual ALI records associated with these records are provided below.

TN CRs are submitted by Akimeka when valid MSAG addresses are identified and validated against the GIS data. Akimeka will continue to investigate and report on these ESN 199 MSAG records as a separate project and add-on to the Database Synchronization quarterly report.

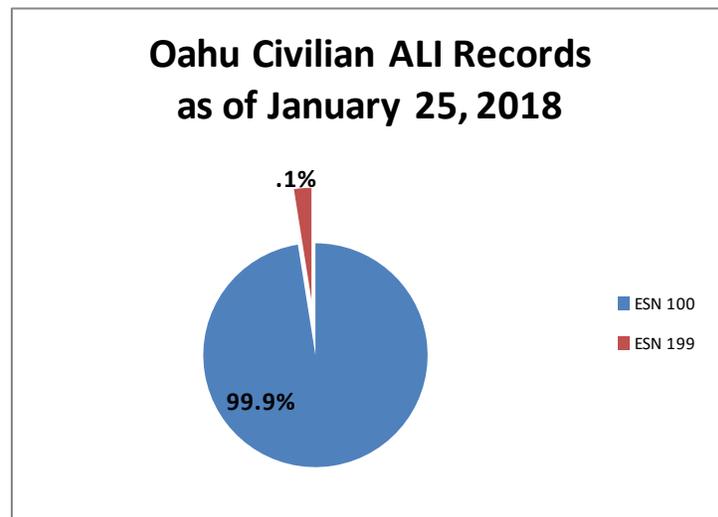
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AUTOMATIC LOCATION IDENTIFICATION (ALI) DATABASE DISCREPANCIES

As part of Akimeka’s ongoing database synchronization efforts, Akimeka reviewed and summarized the ALI discrepancies by community in 9-1-1Net for the City & County of Honolulu (Oahu Civilian). As of January 25, 2018, there are **47** ALI records with an assigned ESN of 199, representing **.1%** of the City & County of Honolulu (Oahu Civilian) total ALI records.

With Akimeka’s continuing MSAG Community and Street Segment Sweep effort, the percentage of ESN 199 records may increase as low and high address ranges and new communities are verified.



The number of Ali records with an ESN 199 records decreased by **50%** (94 to 27) from October 2017 to January 2018. The decrease was due primarily to Akimeka’s effort to identify the invalid MSAG records and verify their correct locations against current County GIS data.

Although the ESN 199 is a “valid” MSAG utilized for overflow addressing, the voice portion of the 9-1-1 call will still be routed to the PSAP. However, the address information will present an invalid address/location to the dispatcher or a “No Record Found” condition which may affect the processing of the 9-1-1 response and/or cause confusion or delay during the dispatch of 9-1-1 resources to the caller’s location.

The goal, which requires the cooperation among all service providers, is to clean-up all ESN 199 MSAG records to a valid City & County of Honolulu ESN 100 to ensure that all ALI records assigned to the City & County of Honolulu (Oahu Civilian) have an “MSAG valid address”.