

STATE OF HAWAII

Enhanced 911 Board Meeting (Combined Meeting) Kalanimoku Bldg., Room 132 (DLNR Board Room) 1151 Punchbowl St., Honolulu Thursday, May 12, 2016 10:00 am - 12:00 pm

Agenda

- I. Call to Order, Public Notice, Quorum
- II. Public testimony on all agenda items
- III. Introductions
- IV. Review and Approval of Last Month's Meeting Minutes
- V. Committee Updates by Committee Chairs
 - a. Communications Committee Steven Schutte
 - i. 2016 Legislative Investigative Committee update Paul Ferreira
 - ii. Others.
 - b. Technical Committee Thalia Burns
 - i. Investigative Regulatory Committee Davlynn Racadio
 - ii. FCC update
 - iii. Text-to-911 update
 - iv. Others
 - c. Finance Committee Kiman Wong
 - i. Review of Monthly Cash Flow & Budget Financial reports.
 - ii. Others.

VI. PSAP Status Updates

- a. Kauai Mark Begley
- b. Oahu HPD Allan Nagata
- c. Oahu HFD Gary Lum

- d. Molokai Dean Rickard
- e. Maui John Jakubczak
- f. Hawaii Paul Ferreira

VII. Executive Director's Report

- a. The ED will provide updates on the following items:
 - i. National 911 Program Database Report Update.
 - ii. FCC Data Collection project Update.
 - iii. Encumbrances and FY2016 Accounting Close Update
 - iv. FY2017-21 Strategic Budget Planning Update

VIII. Items for Discussion, Consideration and Action

- a. 911 Timeline update.
- b. Request for Approval:
 - i. APCO Conference, August 14 17, 2016, Orlando, FL.
 - 1. HPD (3) \$10,500.
 - 2. Board member (1) \$3,500.
 - 3. APCO/NENA Pacific Chapter (1) \$3,500.
 - 4. KPD (3) \$10,500.
 - 5. HiPD (2) \$7,000.
 - ii. Emergency Services Dispatcher CTO Training, Kauai, May 16-20, 2016
 - 1. MPD (1) \$790.
 - iii. Communications Center Manager Training, Denver, CO, Aug/Sep/Oct 2016.
 - 1. HiFD (2) \$18,580.14
 - iv. KPD CAD Upgrade (State Taxes) addition \$47,500 (\$2,347,500 new total).
 - v. KPD CAD Interface for eBench Warrant \$5,000
 - vi. Reguest for Replacement Signatory for E911 Fund Steven Schutte.
- c. Others

IX. Announcements

- a. Future meeting dates (10am 12 noon).
 - i. Thursday, June 9, 2016 (Combined meeting)
 - ii. Thursday, July 14, 2016 (Combined meeting)
 - iii. Thursday, August 11, 2016 (Combined meeting)
- X. Executive Session: HRS 92-5(a)(4) and HRS 92F (a)(2) to consult with the board's attorney on questions and issues pertaining to the board's powers, duties, privileges, immunities, and liabilities.

- XI. Open Forum: Public comment on issues not on the agenda for consideration for Board agenda at the next meeting.
- XII. Adjournment



AUDREY HIDANO
Deputy Comptroller

STATE OF HAWAII

Enhanced 911 Board Meeting (Combined Meeting) Kalanimoku Bldg., Room 132 1151 Punchbowl St., Honolulu Thursday May 12, 2016 10:00 am - 12:00pm

<u>Board members present</u>: Paul Ferreira, Mark Begley, Roy Irei, John Jakubczak, Steven Schutte, Mark Wong, Kiman Wong, Dean Rickard and Jeff Riewer. <u>Board members absent</u>: Todd Nacapuy, Thalia Burns, Lisa Hiraoka and Ryan Freitas.

Staff members present: Courtney Tagupa, Kerry Yoneshige and Stella Kam.

<u>Guests</u>: Major General Arthur Logan (Homeland Security), Antonio Ramirez (Akimeka), Davlynn Racadio (MPD), Marshall Kanehailua (HiPD), Gary Lum (HFD), Travis Ing (HiPD), Diana Chun (ESD), Eleni Papakiristis (HT), Clement Chan (DIT), Ah Lan Leong (HPD), Rob Gausepohl (KPD), Ben Morgan (HT), Eric Butler (Pictometry), Mark Begley (KPD), Victoria Garcia (DoD), Lavina Taovao (KPD), David Miyasaki (Kauai County), Delores Cook (DoD), Bonnie Young (MPD) and Morris Tamanaha.

Minutes

I. Call to Order, Public Notice, Quorum

- a The meeting was called to order at 11:37 am by Board Chair Paul Ferreira.
- b. Public notice has been issued.
- C Quorum was present for all committees and the Board.

II. Public testimony on all agenda items

a Chair Ferreira asked if anyone who wishes to provide testimony onany agenda item to please come forward. No one came forward to testify.

III. Introductions

a Introductions were made by everyone present at the request of Chair Ferreira.

IV. Review and Approval of Last Month's Meeting Minutes

a Mr. Kiman Wong motioned to approve the April 2016 meeting minutes. The motion was seconded and approved by voice vote by all Board members present.

V. Committee Updates by Committee Chairs

a Communications Committee - Steven Schutte

- i. 2016 Legislative Investigative Committee update Paul Ferreira
 - 1. The Committee Chair acknowledged that there were no updates to what was presented at the Joint Committee meeting.
- ii. Others.
 - 1. The Committee Chair acknowledged that there were no other additional items for discussion.

b. Technical Committee - Thalia Burns

- i. Investigative Regulatory Committee Davlynn Racadio
 - 1. The Committee Chair acknowledged that there were no updates to what was presented at the Joint Committee meeting.
- ii. FCC update
 - 1. The Committee Chair acknowledged that there were no updates to what was presented at the Joint Committee meeting.
- iii. Text-to-911 update
 - 1. The Committee Chair acknowledged that there were no updates to what was presented at the Joint Committee meeting.
- iv. Others
 - 1. The Committee Chair acknowledged that there were no updates to what was presented at the Joint Committee meeting.
- c Finance Committee Kiman Wong
 - i. Review of Monthly Cash Flow & Budget Financial reports.
 - 1. The Committee Chair acknowledged that there were no updates to what was presented at the Joint Committee meeting.
 - ii. Others.
 - 1. The Committee Chair acknowledged that there were no additional items for discussion.

VI. PSAP Status Updates

- a Kauai Mark Begley
 - 1. KPD A/C Rob Gausepohl made an announcement that KPD has hired their last county-funded dispatch position.
- b. Oahu HPD Allan Nagata
 - 1. The PSAP representative acknowledged that there were no updates to what was presented at the Joint Committee meeting. Mr. Mark Wong announced that the Pictometry contract has been approved for Oahu by purchasing.
- c. Oahu HFD Gary Lum
 - 1. The PSAP representative acknowledged that there were no updates to what

was presented at the Joint Committee meeting.

d. Molokai - Dean Rickard

1. The PSAP representative acknowledged that there were no updates to what was presented at the Joint Committee meeting.

e. Maui – John Jakubczak

1. The PSAP representative acknowledged that there were no updates to what was presented at the Joint Committee meeting.

f. Hawaii – Paul Ferreira

1. The PSAP representative acknowledged that there were no updates to what was presented at the Joint Committee meeting.

VII. Executive Director's Report

- a The ED will provide updates on the following items:
 - i. National 911 Program Database Report Update
 - 1. The ASA provided an update that we are approximately 60% complete on the National 911 Program Database Update due May 31, 2016 and approximately 70% complete on the FCC Annual Information Collection due June 30, 2016. We will draft a questionnaire and send to the PSAPs for their inputs in addition to sending a draft of these reports for their review prior to final submission of these two items. The ASA thanked the PSAPs for their support and asked to please contact her or the ED with any questions. The ASA also thanked Mr. Tony Ramirez for his efforts and assistance with the National 911 Program Database.
 - ii. Encumbrance planning and FY2016 Accounting Close
 - 1. The ED stated that we are approaching the mid-June deadline and we will be discussing the encumbrances that will be included in the strategic budget plan.
 - iii. Encumbrances and FY2016 Accounting Close Update
 - The ED announced that the current ceiling has been reached taking into account actual and anticipated expenditures and details will be reviewed in the strategic budget planning session that will follow the Board meeting. There are a few items that need to be addressed in order for an item to meet the legal definition of an encumbrance and this mainly includes the completion of signed contracts. These items will be discussed in further detail at the strategic budget plan meeting.
 - iv. FY2017-21 Strategic Budget Planning Update
 - 1. The ED announced that he would like to immediately enter into the

Page 3 of 5

strategic budget planning session following the Board meeting and does not anticipate it will run longer than one hour.

VIII. Items for Discussion, Consideration and Action

- a 911 Timeline update.
 - i. Chair Ferreira requested that the PSAPs report any timeline updates to be posted on the 911 website to the Executive Director.
- b. Request for Approval:
 - i. APCO Conference, August 14 17, Orlando, FL.
 - 1. HPD (3) \$10,500
 - 2. Board Member (1) \$3,500
 - 3. APCO/NENA Pacific Chapter (1) \$3,500
 - 4. KPD (3) \$10,500
 - 5. HiPD (2) \$7,000

Vice-Chair Roy Irei motioned to approve the amendment to the agenda to add the request for one individual from DIT to attend the APCO conference at a total of \$3,300. The motion was seconded and approved by voice vote by all Board members present.

Vice-Chair Irei motioned to approve all of the individuals listed above to attend the APCO Conference at the amounts listed above. The motion was seconded and approved by voice vote by all Board members present.

- Emergency Services Dispatcher CTO Training, Kauai, May 16-20 2016
 - 1. MPD (1) \$790

Vice-Chair Irei motioned to approve the amendment to the agenda to amend the total dollar amount from \$790 to the correct amount of \$970. The motion was seconded and approved by voice vote by all Board members present.

Vice-Chair Irei motioned to the one individual from MPD to attend the CTO training at the newly amended total cost of \$970. The motion was seconded and approved by voice vote by all Board members present.

Communications Center Manager Training, Denver, CO, Aug/Sep/Oct 2016
 HiFD (2) - \$18,580.14

Vice-Chair Irei announced this item will be deferred until the June 9, 2016 Board meeting.

• KPD CAD Upgrade (State Taxes) addition - \$47,500 (\$2,347,500) new total

Page 4 of 5

KPD A/C Rob Gausepohl stated that this request for \$47,500 is for state taxes that were not originally factored into the CAD upgrade amount. He clarified that this request is not the full amount of the state taxes, but reflects the remaining portion not originally requested.

- KPD CAD Interface for eBench Warrant \$5,000
 Vice-Chair Irei announced this item will be deferred until the June 9, 2016 Board meeting.
- Request for Replacement Signatory for E911 Fund Steven Schutte

Vice Chair Irei made a motion to approve the request to add Mr. Steven Schutte to the list of the Enhanced 911 Board authorized signatories.

g Announcements

- 1. Future meeting dates (10am 12 noon).
 - Thursday, June 9, 2016 (Combined meeting)
 - Thursday, July 14, 2016 (Combined meeting)
 - Thursday, August 11, 2016 (Combined meeting)
 - Thursday, September 8, 2016 (Combined Meeting)
- h Executive Session: HRS 92-5(a)(4) and HRS 92F (a)(2) to consult with the board's attorney on questions and issues pertaining to the board's powers, duties, privileges, immunities, and liabilities.
 - i. Chair Ferreira announced that an Executive Session was not necessary during this month's Board meeting.
- i Open Forum: Public comment on issues not on the agenda for consideration for Board agenda at the next meeting.
 - Chair Ferreira asked if there was anyone who wishes to comment on issues not on the agenda for consideration for the agenda at the next board meeting. No one came forward.

j. Adjournment

i. Vice-Chair Irei motioned to adjourn the meeting. The motion was seconded and approved by voice vote by all Committee members present. The

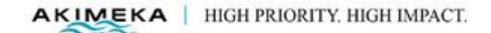
Page **5** of **5**

meeting was adjourned at 11:52 am.

Oahu Civilian E9-1-1

Status Report

May 1, 2016 - May 31, 2016



May 1, 2016 - May 31, 2016

TABLE OF CONTENTS

1.	PSAP Operations	4
	9-1-1 Call Volume – May 2016	4
	9-1-1 Call Volume – Calendar Year 2016	4
	Note:	4
	9-1-1 Call Volume by Agency – May 2016	5
	9-1-1 Call Volume by Agency – Calendar Year 2016	5
	PSAP Operation Notes:	6
	Text to 911 – current month – May 2016	7
	Note:	7
	Note:	7
	Wireless PSAP TESTING – May 2016	8
	Notes:	8
	For Your Information	8
2.	MSAG (master street address guide)	9
	Msag transactions Current Month/year – MAY 2016	9
	Msag current month notes:	10
	Telephone record (Ali) Transactions current month notes:	10
	Open telephone record (ali) discrepancy Status:	10
	TNCR (Telephone Number Change Request) Current Status – May, 2016	11
	NOTE:	
	MSAG Communities Project	



May 1, 2016 - May 31, 2016

	MSAG Community and Street Segment Sweep – Phase VII	12
3.	. Geographic Information System (GIS) – May 2016	14
	Mapping Layers Updated (Part I)	14
	Mapping Layers Updated (Part II)	15
	Mapping Layers Updated (Part III)	16
	Mapping Layers Updated (Part IV)	17
	Mapping Layers Updated (Part V)	18
	Mapping Layers Updated (Part VI)	19
	Mapping Layers Updated (Part VII)	20
	Geographic Information System (GIS) Narrative	21
	GIS Key Activities/Updates	21
	Police Beats Corrections	22
	MapFlex System	22
	MapFlex Issue	23
	Street Utility Check	23
	Wireless annual audit	23
	Request for 9-1-1 Jurisdictional Boundaries	25
4.	. E9-1-1 DATABASE SYNCHRONIZATION	26
	Audit Summary Results – 2016 TBA	26
	Audit Summary Results – July 1, 2016 MSAG VS. April 1, 2016 Msag TBA	26
	Audit Summary Results – JULY 1, 2016 msag vs. APRIL 1, 2016 MSAG CONTIUNED	26
	Invalid MSAG Streets and Address Ranges – ESN x99 Records TBA	26
	Automatic Location Identification (ALI) Discrepancy Report TBA	26

May 1, 2016 - May 31, 2016

1. PSAP OPERATIONS

9-1-1 CALL VOLUME - MAY 2016

(Source: West Safety Services (Intrado) 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						
2016	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		No. of Calls with No ALI		No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned		No. of Other Calls	% of Total Calls
May	86,950	19,555	22.49%	64,108	73.73%	50.05%	23.68%	3,235	3.72%	52	0.06%	2,003	2.30%	12,015	13.82%	838	0.96%

9-1-1 CALL VOLUME - CALENDAR YEAR 2016

9-1-1 Prima									ry PSAP Call Volume								
Honolu	lu City & County PSAPs	Wireline		Wireless			VOIP Calls Ca		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls		
2016	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	88,400	20,120	22.76%	64,868	73.38%	51.49%	21.89%	3,359	3.80%	53	0.06%	2,193	2.48%	12,706	14.37%	2,249	2.54%
FEB	81,812	19,079	23.32%	59,641	72.90%	50.74%	22.16%	3,043	3.72%	49	0.06%	1,950	2.38%	11,815	14.44%	611	0.75%
MAR	86,041	19,385	22.53%	63,498	73.80%	50.08%	23.72%	3,097	3.60%	60	0.07%	1,482	1.72%	13,099	15.22%	642	0.75%
APR	85,009	19,510	22.95%	62,431	73.44%	49.70%	23.74%	3,026	3.56%	42	0.05%	2,332	2.74%	11,895	13.99%	635	0.75%
MAY	86,950	19,555	22.49%	64,108	73.73%	50.05%	23.68%	3,235	3.72%	52	0.06%	2,003	2.30%	12,015	13.82%	838	0.96%
JUNE																	
JULY																	
AUG																	
SEPT																	
ост																	
NOV																	
DEC																	
YTD	428,212	97,649		314,546				15,760		256		9,960		61,530		4,975	
MON AVG	85,642	19,530	22.81%	62,909	73.45%	50.41%	23.04%	3,152	3.68%	51	0.06%	1,992	2.32%	12,306	14.37%	995	1.15%

NOTE:

• Calls with no Ali 0.06% - Statewide average = 0.18% Year 2015

May 2016



May 1, 2016 - May 31, 2016

9-1-1 CALL VOLUME BY AGENCY - MAY 2016

		9-1-1 Call Volume by Agency											
2016		Hon	olulu Polic	ce Departn		Honolulu Fire Department							
2010	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			
May	75,195	86.48%	20,540	41,427	1,213	12,015	2,655	3.05%	55	0			

		9-1-1 Call Volume by Agency										
2016	E	mergency Me	edical Service	es	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				
May	8,204	9.44%	682	107	58	0.07%	53	11				

9-1-1 CALL VOLUME BY AGENCY – CALENDAR YEAR 2016

		9-1-1 Call Volume by Agency																
2016	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	76,128	86.12%	19,451	42,722	1,249	12,706	2,284	2.58%	103	0	7,648	8.65%	755	146	91	0.10%	86	6
FEB	70,806	86.55%	18,378	39,567	1,046	11,815	2,021	2.47%	83	0	8,314	10.16%	762	108	60	0.07%	59	1
MAR	74,275	86.33%	19,350	40,633	1,193	13,099	3,256	3.78%	115	0	7,804	9.07%	121	123	64	0.07%	53	8
APR	73,760	86.77%	19,959	40,560	1,346	11,895	2,388	2.81%	119	0	8,179	9.62%	824	140	47	0.06%	43	14
MAY	75,195	86.48%	20,540	41,427	1,213	12,015	2,655	3.05%	55	0	8,204	9.44%	682	107	58	0.07%	53	11
JUNE																		
JULY																		
AUG																		
SEPT																		
ОСТ																		
NOV																		
DEC																		
YTD	370,164		97,678	204,909	6,047	61,530	12,604		475	0	40,149		3,144	624	320		294	40
MON AVG	74,033	86.45%	19,536	40,982	1,209	12,306	2,521	2.94%	95	0	8,030	9.39%	629	125	64	0.07%	59	8

Oahu Civilian



May 1, 2016 - May 31, 2016

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 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.

Page 6 of 26

May 1, 2016 - May 31, 2016

TEXT TO 911 - CURRENT MONTH - MAY 2016

NOTE:

- The Oahu Civilian PSAPs have deployed a soft launch for Text to 911 on December 21, 2015.
- During this soft launch period, PSAP personnel will utilize this period to sharpen their Texting skills and procedures.
- 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 2016											
Month	Total	HPD	HFD	EMS	OS	911 (handled)						
January	110	96	1	0	0	13						
February	109	75	0	3	0	31						
March	160	110	28	2	0	20						
April	132	124	1	4	0	3						
May	143	131	2	0	0	10						
June												
July												
August												
September												
October												
November												
December												
YTD	654	536	32	9	0	77						
Monthly Avg.	130.8	107.2	6.4	1.8	0.0	15.4						

NOTE:

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

May 2016

Oahu Civilian E9-1-1 Status Report

May 1, 2016 - May 31, 2016

WIRELESS PSAP TESTING - MAY 2016

	OAHU CIVILIAN - MAY 2016											
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:						
5/3/2016	Verizon	2	5	Oahu PSAP	Pass	2 Testers						
5/10/16	Verizon	2	6	Oahu PSAP	Pass							
5/17/16	Verizon	2	4	Oahu PSAP	Pass							
5/26/16	Verizon	11	33	Oahu PSAP	Pass	4 Testers						
5/26/16	AT&T	1	6	Oahu PSAP	Fail	COW in Waikiki						

NOTES:

Oahu Civilian

• There were nine (9) scheduled Wireless 911 Tests for the Oahu Civilian PSAP in May, 2016. A total of 54 Cell Sectors were tested. Failed sectors will be rescheduled after technical issues are resolved.

FOR YOUR INFORMATION

FYI	For Your Information
MLTS (Multi I	Line Telephone System)

"Most MLTS/PBX systems enable the digits 9-1-1 to be dialed and routed to a Public Safety Answering Point (PSAP). However, the vast majority of these systems do not provide granular location information with the 9-1-1 call to enable emergency responders to know the actual location of the emergency. In many instances a call from the 12th floor of a large office building may only provide the street address of the building. If the caller is unable to provide his or her location and no one else is available to provide assistance, such a lack of location information can prove fatal." (NENA: Multi-Line Telephone System & Private Branch Exchange) Technical Standards & Docs.

PRIMARY	MLTS/PBX	911 CALLS RECEIVED				
PSAPS*	MAY 2016	YEAR TO DATE 2016				
Oahu	3,594	17,315				
Hawaii	61	307				
Maui	89	493				
Molokai	0	1				
Kauai	16	114				
Total**	3,760	18,230				

^{*}PSAP totals does not include Military 911 calls.

- 1.61 5 51

^{**} Total numbers are a minimum estimated count. Presently, CENTRX & VoIP call volumes are combined with Multi & Single line systems and were not added to the total MLTS 911 calls.

May 1, 2016 - May 31, 2016

2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR - MAY 2016

OAHU		9-1-1 TRANSACTIONS										
CIVILIAN		MSAG	А	LI Submitte	ed	Discre	Customer					
2016	Total	MSAG (A)	TN CR (B)	ALI DR (C)	VoIP (D)	TNCR	ALI DR	VoIP DR	Addresses Affected			
JANUARY	24	23	0	1	0	468	0	0	515			
FEBRUARY	244	26	216	2	0	497	0	1	421			
MARCH	97	22	71	3	1	426	0	0	737			
APRIL	96	25	71	0	0	358	0	0	955			
MAY	106	22	83	1	0	295	0	0	93			
JUNE												
JULY												
AUGUST												
SEPTEMBER												
OCTOBER												
NOVEMBER												
DECEMBER												
TOTAL YTD	567	118	441	7	1				2,721			
AVG PER MONTH	113	24	88	1	0				544			

Definitions

(A) Master Street Address Guide - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.

- (B) **T**elephone **N**umber **C**hange **R**equest 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) **A**utomatic **L**ocation **I**nformation **D**iscrepancy **R**ecord 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.



May 1, 2016 - May 31, 2016

MSAG CURRENT MONTH NOTES:

A total of **106** MSAG transactions were processed in 9-1-1 Net during the month of May 2016. Twenty-two (**22**) requests were processed relating to the MSAG database changes 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 93 customer ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

83 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.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- There are 295 Open TN CR Transactions as of May 31, 2016.
- Refer to chart in the next section "TNCR Current Status"

295 Open TN CR transactions are a direct result of the ESN 199 clean-up and are awaiting approval from Hawaiian Telcom, Inc. Once a telephone number is submitted to Intrado for correction, it must be verified against HT records and/or approved by the customer. Intrado's internal process requires calling each telephone customer individually for approval to update an address in the 9-1-1 database.

- There is zero Open ALI-DR as of May 31, 2016.
- There is zero Open VoIP DR as of May 31, 2016.

May 1, 2016 - May 31, 2016

TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS - MAY, 2016

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 (Intrado) 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	PSAP TOTAL TNCR RECORDS SUBMITTED BY AKIMEKA OPENED TNCRS PENDING FURTHER ACTION BY WEST SAFETY SERVICES (INTRADO) OPENED TNCRS REFERRED TO TELCO BY WEST SAFETY SERVICES (INTRADO) TOTAL UNOPENED TNCR RECORDS						
OAHU CIVILIAN	295	4	207	84			

STATUS

TOTAL TNCRs SUBMITTED - The total number of TNCR requests for modification that have been submitted in 9-1-1 NET.

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 (Intrado) 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.

Oahu Civilian May 2016

May 1, 2016 - May 31, 2016

MSAG COMMUNITIES PROJECT

MSAG COMMUNITY AND STREET SEGMENT SWEEP - PHASE VII

MSAG Community and Street Segment Sweep - Phase VII

Subsequent to the completion of the MSAG Community and Street Segment Sweep - Phase V work on **June 27, 2014**, and the Database Synchronization Phase VI in **July 2014**, a project plan for Phase VII, with regards to the spatial accuracy of Street Centerlines, was approved by the Honolulu Police Department on **July 31, 2014**. The MSAG Community and Street Segment Sweep - Phase VII project is aimed to identify and correct the spatial accuracy of Street Centerlines throughout the island of Oahu, through a methodical counterclockwise approach, following the same community correction path in the previous phases, to ultimately increase the accuracy of the data and to be in compliance with NENA standards. Street Centerlines that are corrected through this process will then achieve the NENA recommended standard of being accurate to within 10 feet or less.

Below is the latest Phase VII work effort as of May 31, 2016:

	MSAG CO	MMUNITY AN	D STREET SEGME	MENT SWEEP PHASE VII GIS UPDATES				
MSAG COMMUNITY (In Order of Effort)	Order of Effort) TARGET COMPLETION AKIMEKA		AKIMEKA COMPLETION DATE	NOTES/COMMENTS	DATE GIS DELIVERED TO HPD	DATE GIS LOADED TO CAD BY HPD		
Waimanalo	08/01/14	08/12/14	08/09/14		08/11/14	08/22/14		
Kailua	08/13/14	09/16/14	09/11/14		09/19/14	09/26/14		
Kaneohe	09/17/14	10/24/14	10/27/14	Completed 1 business day behind schedule due to approved special requests	10/31/14	11/07/14		
Kahaluu	10/27/14	11/04/14	10/29/14					
Kaaawa	11/05/14	11/07/14	10/31/14					
Punaluu	11/10/14	11/11/14	11/05/14					
Hauula	11/12/14	11/17/14	11/06/14		11/14/14	11/21/14		
Laie	11/18/14	11/24/14	11/14/14					
Kahuku	11/25/14	12/02/14	11/25/14		11/28/14	12/08/14		
Sunset	12/03/14	12/10/14	12/08/14		12/12/14	12/18/14		
Haleiwa	12/12/14	12/24/14	01/14/15	There are many farming and cane roads that require lengthy and detailed editing, slowing down progress	01/23/15	02/05/15		
Wahiawa	01/02/15	01/21/15	02/03/15		02/06/15	02/13/15		
Waialua	01/22/15	01/29/15	02/09/15					
Mokuleia	01/30/15	02/05/15	02/12/15		02/19/15	02/25/15		
Kalanianaole Hwy Project	02/09/15	03/04/15	02/19/15		02/19/15	02/25/15		
Makaha	03/05/15	03/12/15	02/17/15					
Waianae	03/13/15	03/24/15	03/09/15		02/20/45	04/02/45		
Maili	03/25/15	04/02/15	03/17/15		03/20/15	04/02/15		
Nanakuli	04/03/15	04/13/15	03/27/15		04/06/15	04/17/15		
Makakilo	04/14/15	04/28/15	04/15/15		04/17/15	04/29/15		
Kapolei	04/29/15	05/21/15	05/19/15		5/1/2015, 5/15/2015			



May 1, 2016 - May 31, 2016

MSAG Community and Street Segment Sweep - Phase VII continued

	MSAG CO	GIS UPDATES				
MSAG COMMUNITY (In Order of Effort)	TARGET START DATE	TARGET COMPLETION DATE	AKIMEKA COMPLETION DATE	NOTES/COMMENTS	DATE GIS DELIVERED TO HPD	DATE GIS LOADED TO CAD BY HPD
Kalaeloa	05/22/15	06/08/15	06/08/15		06/12/15	06/25/15
Ewa Beach	06/09/15	07/27/15	07/24/15		06/26/15	07/13/15
Iroquois	07/28/15	08/03/15	07/27/15		07/10/15	07/14/15
Waipahu	08/04/15	09/07/15	08/25/15		08/7/15,	
Kunia	09/08/15	09/11/15	08/26/15		08/21/15	
Waipio	09/14/15	09/29/15	09/18/15		09/18/15	10/12/15
Mililani	09/30/15	11/19/15	11/10/15		11/10/15	12/14/16
Pearl City	11/20/15	12/17/15	12/02/16		12/11/16	
Aiea	12/18/15	01/26/16	01/19/16		12/23/16	01/14/16
PC PEN	01/27/16	02/02/16	01/19/16		01/08/16	01/14/10
McGrew PT	02/03/16	02/04/16	01/20/16		-	
Halawa	02/05/16	02/08/16	01/20/16			
Aliamanu	02/12/16	02/17/16	01/21/16	ArcGIS License Issues at	01/22/16	
Moanalua T	02/18/16	02/23/16	01/26/16	HPD on workstation		
Hale Moku	02/24/16	02/29/16	01/26/16	TIFD OII WORKStation		
Maloelap	03/01/16	03/02/16	01/27/16			
Hokulani	03/03/16	03/07/16	02/08/16		02/05/16	
Moanalua	03/08/16	03/10/16	02/12/16	AssCIS Lineages the ground		
Airport	03/11/16	03/25/16	02/12/16	ArcGIS License Item was	02/19/16	02/23/16
Catlin Pk	03/28/16	03/31/16	02/16/16	resolved		
Miller Pk	04/01/16	04/05/16	02/19/16			
Halsey T	04/06/16	04/11/16	02/22/16			
Radford T	04/12/16	04/14/16	02/23/16			
Mapunapuna	04/15/16	04/20/16	03/03/16		03/04/16	03/15/16
Salt Lake	04/21/16	Not Defined	03/03/16	Salt Lake was Missing from the list and was inserted		
Moanalua V	04/21/16	04/29/16	03/14/16		03/18/16	03/30/16
Kalihi	05/02/16	06/21/16	IN PROGRESS	ArcGIS License Issues at HPD on workstation	04/01/16 - 05/27/16	
Nuuanu	06/22/16	07/07/16				
Punchbowl	07/08/16	07/20/16				
Downtown	07/21/16	08/02/16				
Kakaako	08/03/16	08/08/16				
Ala Moana	08/09/16	08/11/16				
Honolulu	08/12/16	08/29/16				
Makiki	08/30/16	09/07/16				
Manoa	09/08/16	09/27/16				

May 1, 2016 - May 31, 2016

3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – MAY 2016

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							
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks				
	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)						
	5/31/2016	<u> </u>	Added two (2) location names in Nuuanu				
	5/31/2016		Added two (2) address points in Nuuanu				
	5/31/2016		Spatially corrected three hundred thirty-one (331) address points in Nuuanu				
	5/31/2016		Deleted one (1) address point in Nuuanu				
		05/27/16	, , ,				
	5/25/2016		Deleted two (2) address points in Nuuanu				
	5/25/2016		Deleted fifteen (15) address points in Ewa Beach				
	5/25/2016		Added one (1) location name in Nuuanu				
	5/25/2016		Spatially corrected three hundred eighty-five (385) address points in Nuuanu				
	5/24/2016		Added one (1) address point in Kalaeloa				
	5/23/2016		Added four (4) building numbers in Nuuanu				
	5/23/2016		Added seven (7) location names in Nuuanu				
	5/23/2016		Added one (1) address point in Nuuanu				
	5/23/2016		Deleted four (4) address points in Nuuanu				
	5/23/2016		Corrected one (1) TMK in Nuuanu				
	5/23/2016		Spatially corrected six hundred sixty-three (663) address points in Nuuanu				
	5/20/2016		Added three (3) location names in Nuuanu				
Address Points	5/20/2016		Deleted one (1) location name in Nuuanu				
	5/20/2016		Corrected two (2) TMK in Nuuanu				
	5/20/2016		Added two (2) building numbers in Nuuanu				
	5/20/2016		Deleted two (2) address points in Nuuanu				
	5/20/2016		Spatially corrected five hundred seventy-six (576) address points in Nuuanu				
	5/19/2016		Added thirty-seven (37) address points in Nuuanu				
	5/19/2016		Added one (1) location name in Nuuanu				
	5/19/2016		Added two (2) routing ids in Nuuanu				
	5/19/2016		Deleted one (1) location name in Nuuanu				
	5/19/2016		Added one (1) building number in Nuuanu				
	5/19/2016		Added two (2) floor numbers in Nuuanu				
	5/19/2016		Added one (1) apartment number in Nuuanu				
	5/19/2016		Spatially corrected one hundred seventy-seven (177) address points in Nuuanu				
	5/18/2016		Corrected four (4) location names in Nuuanu				
	5/18/2016		Deleted three (3) address points in Nuuanu				
	5/18/2016		Added three (3) location names in Nuuanu				
	5/18/2016		Added three (3) address points in Nuuanu				

Oahu Civilian May 2016

May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART II)

	OAHU CIVILIAN						
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks				
	CRITICAL 9-1-1	PUBLIC SAFE	TY LAYERS FOR DISPATCH & RESPONSE				
	(Listed Alphabetically)						
	5/18/2016		Added one (1) routing id in Nuuanu				
	5/18/2016		Added one (1) building number in Nuuanu				
	5/18/2016		Corrected one (1) TMK in Nuuanu				
	5/18/2016		Spatially corrected five hundred forty-three (543) address points in Nuuanu				
	5/17/2016		Spatially corrected six (6) address points in Kalihi				
	5/17/2016		Added twenty-nine (29) routing ids in Kalihi				
	5/17/2016		Deleted one (1) apartment number in Nuuanu				
	5/17/2016		Added one (1) location name in Nuuanu				
	5/17/2016		Corrected one (1) TMK in Nuuanu				
	5/17/2016		Deleted two (2) address points in Nuuanu				
	5/17/2016		Spatially corrected fifty-one (51) address points in Nuuanu				
	5/16/2016		Added nineteen (19) address points in Nuuanu				
	5/16/2016		Deleted twenty-four (24) address points in Nuuanu				
	5/16/2016		Added three (3) location names in Nuuanu				
	5/16/2016		Corrected two (2) TMK in Nuuanu				
	5/16/2016		Added one (1) routing id in Nuuanu				
Address Points	5/16/2016		Spatially corrected three hundred seventy-two (372) address points in Nuuanu				
		05/13/16					
	5/11/2016		Deleted twenty-five (25) address points in Kalihi				
	5/11/2016		Deleted eight (8) address points in Nuuanu				
	5/11/2016		Added one (1) address point in Nuuanu				
	5/11/2016		Added two (2) location names in Nuuanu				
	5/11/2016		Added two (2) routing ids in Nuuanu				
	5/11/2016		Deleted one (1) location name in Nuuanu				
	5/11/2016		Corrected one (1) TMK in Nuuanu				
	5/11/2016		Spatially corrected two hundred seventy-five (275) address points in Nuuanu				
	5/10/2016		Spatially corrected one (1) address point in Manoa				
	5/10/2016		Spatially corrected one (1) address point in Makakilo				
	5/10/2016		Spatially corrected forty-two (42) address points in Nuuanu				
	5/10/2016		Added one (1) location name in Nuuanu				
	5/10/2016		Added two (2) address points in Nuuanu				
	5/10/2016		Deleted three (3) address points in Nuuanu				
	5/10/2016		Corrected forty-four (44) location names in Waipio				
	5/10/2016		Added one (1) location name in Waipio				



May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART III)

OAHU CIVILIAN							
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks				
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE							
	(Listed Alphabetically)						
	5/5/2016		Added fourteen (14) location names in Kalihi				
	5/5/2016		Corrected three (3) addresses in Kalihi				
	5/5/2016		Added three (3) aliases in Kalihi				
	5/5/2016		Added two (2) address points in Kalihi				
	5/5/2016		Added one (1) routing id in Kalihi				
	5/5/2016		Deleted fourteen (14) address points in Kalihi				
	5/5/2016		Deleted three (3) location names in Kalihi				
Address Points	5/5/2016		Added one (1) building number in Kalihi				
Address Follits	5/5/2016		Spatially corrected three hundred fifty-one (351) address points in Kalihi				
	5/5/2016		Spatially corrected seven (7) locations in Kalihi				
	5/4/2016		Spatially corrected twenty (20) address points in Kalihi				
	5/2/2016		Added nine (9) location names in Kalihi				
	5/2/2016		Corrected four (4) TMK in Kalihi				
	5/2/2016		Added three (3) address points in Kalihi				
	5/2/2016		Deleted twelve (12) address points in Kalihi				
	5/2/2016		Spatially corrected two hundred eighty-one (281) address points in Kalihi				
Airports							
Bridges							
Building Footprints							
Bus Stops							
Churches							
Coastal Names							
Coastline							
	5/31/2016		Spatially corrected four (4) locations in Nuuanu				
		05/27/16					
	5/25/2016		Spatially corrected three (3) locations in Nuuanu				
	5/24/2016		Added one (1) new common place in Kalaeloa				
	5/23/2016		Spatially corrected eleven (11) locations in Nuuanu				
Common Places	5/20/2016		Spatially corrected three (3) locations in Nuuanu				
	5/19/2016		Spatially corrected three (3) locations in Nuuanu				
	5/18/2016		Spatially corrected sixteen (16) locations in Nuuanu				
	5/17/2016		Spatially corrected two (2) locations in Nuuanu				
	5/16/2016		Spatially corrected twenty-two (22) locations in Nuuanu				
		05/13/16					

May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART IV)

OAHU CIVILIAN							
Type of Layer Type of Layer Date Created/ Edits Performe		Date GIS Delivered	Other/Remarks				
	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE						
		(Listed	d Alphabetically)				
	5/13/2016		Added one (1) new Common Place in Waipahu				
	5/13/2016		Added one (1) new Common Place in Ewa Beach				
	5/12/2016		Added one (1) new Common Place in Waipahu				
	5/11/2016		Added one (1) new Common Place in Kapolei				
	5/11/2016		Added one (1) new Common Place in Waimanalo				
	5/11/2016		Spatially corrected seventeen (17) locations in Nuuanu				
	5/10/2016		Spatially corrected one (1) location in Aina Haina				
	5/10/2016		Spatially corrected four (4) locations in Nuuanu				
	5/10/2016		Added one (1) new Common Place in Aina Haina				
	5/10/2016		Added one (1) new Common Place in Ewa Beach				
Common Places	5/10/2016		Added one (1) new Common Place in Kapolei				
Common Flaces	5/10/2016		Added one (1) new Common Place in Kailua				
	5/10/2016		Added one (1) new Common Place in Kaneohe				
	5/10/2016		Added two (2) new Common Places in Kahaluu				
	5/10/2016		Added one (1) new Common Place in Punaluu				
	5/10/2016		Added two (2) new Common Places in Hauula				
	5/10/2016		Added one (1) new Common Place in Hawaii Kai				
	5/10/2016		Added one (1) new Common Place in Sunset				
	5/10/2016		Added one (1) new Common Place in Manoa				
	5/10/2016		Deleted one (1) Common Place in Haleiwa				
	5/10/2016		Corrected one (1) name in Manoa				
	5/2/2016		Spatially corrected nine (9) locations in Kalihi				
Correctional Facilities							
Emergency Callboxes							
Emergency Operation Centers							
Emergency Shelters							
	5/31/2016		Corrected boundaries for ESNs 144, 146, 149				
		05/27/16					
ESZ/ESN	5/19/2016		Corrected boundary for ESN 125				
		05/13/16					
	5/11/2016		Corrected boundary for ESN 122				
Fire Beats							
Fire Districts							

May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART V)

OAHU CIVILIAN						
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks			
	CRITICAL 9-1-1	PUBLIC SAFET	Y LAYERS FOR DISPATCH & RESPONSE			
			d Alphabetically)			
		05/27/16				
Eiro Doomongo Aroog	5/19/2016		Corrected boundary for STA6			
Fire Response Areas		05/13/16				
	5/11/2016		Corrected boundary for STA4			
Fire Stations						
Food & Beverage						
Gas Stations						
Gate Codes						
Government Buildings						
Harbors						
Helipads						
Hiking Trails						
Hospitals						
Hydrants						
Hyrdology Layers						
Incident Response Areas						
Lodging						
Major Roads						
Medic Beats						
Medic Districts						
Medic Response Areas	5/31/2016		Corrected boundary for MED 21			
Medic Response Areas		05/27/16				
Medic Stations						
Medical Facilities						
Milepost Markers						
	5/31/2016		Corrected boundary for Nanakuli			
		05/27/16				
MSAG Communities	5/19/2016		Corrected boundary for Punchbowl			
		05/27/01				
	5/9/2016		Corrected boundary for Downtown			
Net Junctions						
Ocean Rescue Boundaries						
Ocean Safety						
Parcels						

May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART VI)

OAHU CIVILIAN								
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks					
	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)							
Parks	1	(Liste	u Aiphabeticany)					
Parks Polygon								
Faiks Folygon								
Points of Interest								
		05/27/16						
	5/19/2016	03/21/10	Corrected police beat 160 according to HPD written policies and procedures.					
Police Beats	3/13/2010	05/13/16	Corrected police seat 100 according to 111 D written policies and procedures.					
	5/4/2016	00/10/10	Corrected Police Beats 154, 156, 157, and 158 according to HPD written policies and procedures and began correcting 160					
Police Districts								
Police Response Areas								
Police Stations								
Post Offices								
Schools								
		05/27/16						
	5/24/2016		Added one (1) street segment in Kalaeloa					
	5/24/2016		Corrected range to one (1) street segment in Kalihi					
	5/24/2016		Corrected seventeen (17) street classes in Ewa Beach					
	5/24/2016		Spatially corrected forty-one (41) street segments in Kalihi					
	5/19/2016		Spatially corrected fourteen (14) street segments in Kalihi					
	5/19/2016		Spatially corrected twelve (12) street segments in Punchbowl					
	5/19/2016		Spatially corrected three (3) street segments in Makiki					
	5/19/2016		Spatially corrected one (1) street segment in Honolulu					
	5/17/2016		Corrected range to two (2) street segments in Kalihi					
Street Centerlines	5/17/2016		Spatially corrected forty-four (44) street segments in Kalihi					
		05/13/16						
	5/13/2016		Corrected range to two (2) street segments in Kalihi					
	5/13/2016		Spatially corrected thirty-four (34) street segments in Kalihi					
	5/12/2016		Corrected range to two (2) street segments in Sunset					
	5/12/2016		Spatially corrected twenty (20) street segments in Kalihi					
	5/9/2016		Spatially corrected thirty-eight (38) street segments in Kalihi					
	5/9/2016		Corrected five (5) one ways in Kalihi					
	5/6/2016		Spatially corrected forty-five (45) street segments in Kalihi					
	5/4/2016		Spatially corrected eight (8) street segments in Kalihi					
	5/4/2016		Spatially corrected nine (9) street segments in Punchbowl					

May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART VII)

OAHU CIVILIAN							
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks				
	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)						
Street Centerlines	5/4/2016		Spatially corrected two (2) street segments in Downtown				
	5/3/2016		Spatially corrected seventy-six (76) street segments in Kalihi				
Subdivisions							
Tow Jurisdictions							
Tsunami Evacuation Zones							
Tsunami Heights							
Waste Water Plants							
	F/07/0040	05/31/16 05/27/16	D. ATT ODG				
	5/27/2016	05/00/40	Per ATT CRS				
	5/40/0040	05/23/16	D 477 000				
	5/19/2016	0=110110	Per ATT CRS				
WSP Cell Sectors		05/16/16 05/13/16					
	5/11/2016	05/13/16	Per VZW CRS				
	3/11/2016	05/09/16	FEI VZVV CR3				
	5/6/2016	03/09/10	Per VZW CRS				
	5/6/2016		Per ATT CRS				
	3/0/2010	05/02/16	PELATI CRS				
		05/31/16					
		05/27/16					
	5/27/2016	03/2//10	Per ATT CRS				
	3/21/2010	05/23/16	1 or All Oile				
	5/19/2016	03/23/10	Per ATT CRS				
	3/13/2010	05/16/16	1 or All Olio				
WSP Cell Towers		05/13/16					
	5/11/2016	00, 10, 10	Per VZW CRS				
	5, 1 1, 20 10	05/09/16					
	5/6/2016	30,00,13	Per VZW CRS				
	5/6/2016		Per ATT CRS				
		05/02/16	-				
	l		l				

May 1, 2016 - May 31, 2016

GEOGRAPHIC INFORMATION SYSTEM (GIS) NARRATIVE

GIS KEY ACTIVITIES/UPDATES

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

Date	Key Activities/Updates
5/31/2016	Cell Towers and Cell Sectors for GeoComm at HPD, HFD and EMS
5/27/2016	Street Centerlines, Common Places, Police Beats, MSAG Communities to HPD for Motorola CAD
5/27/2016	Street Centerlines, Address Points, Fire Response Areas, Medic Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for TriTech CAD
5/27/2016	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
5/23/2016	Cell Towers and Cell Sectors for GeoComm at HPD, HFD and EMS
5/16/2016	Cell Towers and Cell Sectors for GeoComm at HPD, HFD and EMS
5/13/2016	Street Centerlines, Common Places, Police Beats, MSAG Communities to HPD for Motorola CAD
5/13/2016	Street Centerlines, Address Points, Fire Response Areas, Medic Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for TriTech CAD
5/13/2016	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
5/9/2016	Cell Towers and Cell Sectors for GeoComm at HPD, HFD and EMS
5/2/2016	Cell Towers and Cell Sectors for GeoComm at HPD, HFD and EMS

Oahu Civilian



May 1, 2016 - May 31, 2016

POLICE BEATS CORRECTIONS

Background

The Police Beats layer was previously identified as a layer requiring corrective action in preparation for the ESZ/ESN project and ensuring spatial accuracy.

Subsequent to the Police Beat corrections that took place during the month of August 2013, upon loading the GIS data for Street Centerlines in the current Motorola Premier CAD, HPD PMT confirmed that there were no issues with regards to the CAD system recommendations. HPD PMT also reviewed the Police Beats corrections worksheet and confirmed that there were no issues with the document. As such, Akimeka proceeded to make corrections to the Police Beats layer utilizing HPD's written Policies and Procedures document for boundary descriptions.

Status to Date

Based on HPD PMT's confirmation, Akimeka continued to make corrections to the Police Beats during the month of May 2016 and has corrected five (5) Police Beats (154, 156, 157, 158, and 160) according to the HPD written Policies and Procedures.

Upload Process

It was agreed that the Police Beats layer will be uploaded to the current Motorola CAD system given some delays with the new Motorola PremierOne CAD system. During the month of April 2015, Akimeka had worked with HPD PMT to design a new upload procedure that would provide the updated Police Beats into the system, along with other corrected layers now previously loaded to the Motorola CAD system. For more information regarding the latest CAD upload procedure, refer to the May 2015 Monthly Status Report, section on Motorola CAD Upload. Updated Police Beats are continuously delivered with this new process on a bi-monthly update with the other GIS deliverables.

MAPFLEX SYSTEM

During the month of May 2016, the MapFlex system received updates without any issues and deliverables continued on schedule.

Considering that the MapFlex initiative being provided by Hawaiian Telecom and sub-contractor, Intrado, 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 year.

During the month of May 2016, there were continued GIS deliverables into the MapFlex system for Hawaii County, Maui County, Kauai County, and Honolulu Civilian PSAPs. The MapFlex deployment has been concluded and is now considered a running system capable of receiving updates regularly.

- 1. Akimeka delivered GIS data to the MapFlex system on the following dates in May 2016
 - a. **Hawaii County** May 10th and May 24th
 - b. **Maui County** May 11th and May 25th
 - c. **Kauai County** May 12th and May 26th
 - d. Honolulu May 13th and May 27th

May 1, 2016 - May 31, 2016

MAPFLEX ISSUE

There were no issues reported for the Honolulu MapFlex Systems during the month of May 2016.

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 March 25, 2016, and April 19, 2016.

During the month of May 2016, there were no updates performed on the HPD CAD because of a license issue occurring on one of their machines used to upload GIS data.

Street Utility Check									
	First Report 06/01/13	3/25/2016	4/19/2016	Improvements/Corrections					
Total Number of GIS Records	26,602	29,355	29,392	Increased by 37 records					
	Errors Identified								
Zero Errors	5,112	16	18	Increased by 2 errors					
Low > High Errors	3	0	0	No Change					
Mixed Parity Errors	1	0	0	No Change					
Changed Parity Errors	105	0	0	No Change					
Address Gap Errors	2,629	2	0	Decreased by 2 errors					
Address Overlap Errors	423	0	0	No Change					
Flipped Link Errors	1,030	590	592	Increased by 2 errors					
Total Errors	9,303	608	612	Increased by 4 errors					

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.

Akimeka plans to continue its work effort to complete corrections of the discrepancies identified and/or identify any valid exceptions which Akimeka will tag with the proper information so the CAD system will accept the record(s) and not jeopardize the full functionality of the CAD system from the upload to RMS. Akimeka plans to complete all Street Utility Check errors prior to the implementation of the Motorola PremierOne CAD "go live" date.

Due to the MSAG Community and Street Sweep – Phase VII project, Akimeka expects there to be fluctuation in the results of the Street Check Utility moving forward, especially with regards to Zero Errors, Flipped Link Errors, Address Gap Errors, and Address Overlap Errors. These errors are as a direct result of the spatial corrections made on the Street Centerline network, where many new ingress segments are added. The preference is that the system can generate these non-impacting and non-critical errors instead of overriding them beforehand. The errors that are identified through this process are subsequently corrected based on the results of the Street Check.

WIRELESS ANNUAL AUDIT

May 1, 2016 - May 31, 2016

During the month of February 2016, the wireless annual audit for Verizon was coordinated and completed as indicated in the Wireless Audit Chart. However during the audit process, it was identified that changes which had been sent through the CRS process for all WSPs were possibly not making their way back to the wireless FMCC database (responsible for information provided via the ALI).

- 1. On February 29, 2016, after completing the review of the Annual Audit for Verizon wireless Akimeka contacted West to discuss the reason why the annual audit synchronization has degraded in the match accuracy.
 - a. Note The CRS process performed throughout the year for all WSPs deals with routine maintenance performed on the sites/sectors. The Annual Audit is intended to identify any possible gaps in that process and seeks reconciliation in an effort to re-synchronize the databases. If there are no missed CRSs throughout the year and the database match percentage decreases, then there are apparent issues.
- 2. On March 15, 2016, Akimeka and West held a conference call to discuss the matter. During the conversation it was identified that the changes sent back from Akimeka to West after accuracy validation, are processed into the FMCC. The issue that Akimeka is seeing when the Annual Audit is provided is resulting from a script West put in place in 2013 to output the CRSs into the approved format at that time.
 - a. The issue is that the format has changed over time due to new technology and more hexadecimal numbering of the wireless sectors. In order to accommodate those changes, Akimeka has developed a translation into an applicable format which the PSAPs are able to use. The format that West is providing each Annual Audit and CRS is overriding the changes within the FMCC, therefore give the appearance of not being synchronized in that process but are. This helps to explain why the wireless testing results are accurate, and the PSAPs are not experiencing a large number of discrepancies in the Mapping Systems when matched with the ALI.
- 3. Akimeka followed up with West on March 30, 2016, to see if West has re-scripted the format.
 - a. West replied that unfortunately it will require system development at West. Melissa Norton of West did mention that the particular system that needs to be changed is currently backlogged with a few large projects. She opened a Product Development Request at West but there is no ETA on the enhancement. In order to speed up the request, she is working to bundle the request with several other State's requests.
- 4. Akimeka will continue to follow up on the process to ensure the wireless databases are maintained accurately. With the big push by the WSPs for more LTE sites, which are having the impact on the hexadecimal numbering, Akimeka is hopeful that West can resolve this issue. The additional work involved to re-validate information takes a significant effort and allows for discrepancy. The Annual Audit is supposed to be a raw comparison to the condition of the data in both the FMCC and the GIS database provided in the Mapping Systems. Without both in its raw format, the comparison becomes unclear as to the real condition of the FMCC database.
- 5. Throughout the month of April 2016, Akimeka had been provided several TVWs by the WSPs for testing and most of the information was good for testing but there was an unusually high number of records that were either missing or were incorrect. Virtually all TVWs sent to Akimeka had some variety of discrepancy in them. This was only applicable to Verizon at the time and since the Annual Audit with Verizon had been completed, bringing the databases to 100% match rate, a reason for the mismatch in TVW information was perplexing. It certainly required more investigation into what was occurring.
- 6. On April 21, 2016, Akimeka was notified of yet another set of TVWs with issues and the WSP and West investigated their end and said everything was matching. Because the Annual Audit was completed, matching West and Akimeka databases, but yet the TVWs produced from the West database were not matching, something was highly unusual.
 - a. Later the same day, Akimeka provided an example of the discrepancy back to West detailing one of the records along a timeline. Information provided in the TVW matched with the record from 2015. Since that time, there were several updates, including the Annual Audit. This indicated that the TVWs being generated by West were not accurate and it also was indicating the Annual Audit sent back to West was not be uploaded. This is a major issue.
- 7. To confirm Akimeka's suspicion that the Annual Audit updates were not being uploaded by West into the FMCC, Akimeka followed up with implementation specialist at West, who the Audit was coordinated with.
 - a. West sent a reply on April 25, 2016, that the audit was not fully completed at West and they were in their final stages before sending changes to the database and on to Verizon. From West "there were a lot of changes that came from the audit which is where you may be seeing the discrepancies. Once Verizon has called in the hot cuts (changes), the data should match the audit sheet you sent".

Oahu Civilian May 2016

May 1, 2016 - May 31, 2016

- b. This was confirmation that the audit was still not being processed fully by West after 2 months and that the issues with mismatched information in the TVWs were as a result of this.
- 8. On May 23, 2016, Akimeka, West, and Verizon held a conference call to discuss the issue in more detail.
 - a. West provided a brief that indicated the Verizon Annual Audit was complete and that the West FMCC database and the Verizon TVWs match.
 - b. Akimeka used several examples of changes which have occurred more recently (all during 2016 year), which were missing or outdated in both the West and Verizon databases.
 - West agreed that they must be behind in processing the changes Akimeka sends to them via the CRSs and the Annual Audit.
 - d. Akimeka brought up several concerns regarding the length of time it is taking West to process the changes and the inability to monitor the changes that occur with every site and sector. Akimeka mentioned that in all of the examples provided where the TVWs were incorrect, Akimeka has been able to pull every change which has occurred to that record. Akimeka maintains an extensive archive of all additions, changes, and deletes dating back in many cases more than 5 years. Akimeka also mentioned that we perform updates based on a change triggered by the WSPs. There is no other form of change that occurs outside of the mechanisms communicated to Akimeka by both West and the WSPs via the CRS or Annual Audits.
 - e. It was agreed that West would follow up with their one (1) resource assigned to the annual audit and see why this has taken almost three months to complete.
 - i. Note the review and update process completed by Akimeka took six (6) business days to complete.
- 9. There were no further follow up discussions or reports by West throughout the remainder of May 2016.

REQUEST FOR 9-1-1 JURISDICTIONAL BOUNDARIES

On March 17, 2016, West had requested information for each of the PSAPs in the State of Hawaii, with the exception of the Honolulu Police Department and Regional Dispatch Center. Akimeka has followed up with West to see if the Honolulu Police Department PSAP was supposed to be included in this request.

- 1. On March 17, 2016, West requested that each PSAP fill out an attached questionnaire and to provide the PSAP Jurisdictional Boundaries (to include VoIP, Wireless, Text, and Alarms).
- 2. Akimeka prepared the boundaries of each of the PSAP Jurisdictional Boundaries which included all requested attribution. Given the geography of the Hawaiian Islands, and the operational responses of each PSAP which includes ocean responses, Akimeka included a buffer for each of the PSAP Boundaries that extend into the ocean. This reflects the true nature of the PSAP Jurisdictional Boundary response area and also covers the distance over water which can account for possible Lat/Longs provided during a Text-to-911 call to the PSAP. Since the system is intended to use the location information to determine routing, inclusion of the water area into the PSAP polygons was a more accurate approach.
- 3. On March 23, 2016, the Akimeka GIS Manager notified West that this information was ready and requested a secure method of transferring the data. Throughout the remainder of March 2016, there was no reply from West.
- 4. On April 19, 2016, West followed back up with the Akimeka GIS Manager. The West employee was unfamiliar with using an ftp site and was going to touch base with her supervisors to find a more secure manner of transferring the data. Throughout the remainder of April 2016, Akimeka did not hear back.
- 5. On May 6, 2016, West sent Akimeka a notification that their ftp site was ready for data to be sent now.
- 6. On May 9, 2016, Akimeka uploaded the PSAP Jurisdictional Boundary data onto the West ftp site and requested confirmation once they receive the data.
- 7. On May 19 2016, Akimeka received a phone call from West notifying that the data was accepted.



May 1, 2016 - May 31, 2016

4. E9-1-1 DATABASE SYNCHRONIZATION

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

Next Scheduled Data Base Synchronization July 2016

AUDIT SUMMARY RESULTS – 2016 -- TBA

AUDIT SUMMARY RESULTS - JULY 1, 2016 MSAG VS. APRIL 1, 2016 MSAG -- TBA

AUDIT SUMMARY RESULTS - JULY 1, 2016 MSAG VS. APRIL 1, 2016 MSAG CONTIUNED

INVALID MSAG STREETS AND ADDRESS RANGES - ESN X99 RECORDS -- TBA

AUTOMATIC LOCATION IDENTIFICATION (ALI) DISCREPANCY REPORT -- TBA

Maui County E9-1-1 Status Report

May 1, 2016 – May 31, 2016





May 1, 2016 - May 31, 2016

TABLE OF CONTENTS

1.	PSAP Operations	5
	9-1-1 Call Volume Maui Psap – May 2016	5
	Call Volume Maui Psap notes:	5
	9-1-1 Call Volume Maui Psap – Calendar Year 2016	5
	9-1-1 Call Volume Molokai Psap – May 2016	6
	Call Volume Molokai Psap notes:	6
	9-1-1 Call Volume Molokai Psap – Calendar Year 2016	6
	9-1-1 Call Volume (Combined Maui & Molokai Psaps) – May 2016	7
	9-1-1 Call Volume (Combined Maui & Molokai Psaps) – Calendar Year 2016	7
	PSAP Operation Notes:	7
	Text to 911 – current month – May 2016	8
	Note:	8
	Wireless PSAP TESTING – May 2016	9
	Notes:	9
	For Your information	9
2.	MSAG (master street address guide)	10
	Msag transactions Current Month/year – May 2016	10
	Msag current month notes:	11
	Telephone record (Ali) Transactions current month notes:	11



May 1, 2016 - May 31, 2016

Open telephone record (Ali) discrepancy Status:	11
TNCR (Telephone Number Change Request) Current Status – May, 2016	12
NOTE:	12
DISPATCHABLE LOCATION – Status as of – May 2016 - pending	13
Narrative:	13
3. Geographic Information System (GIS) – May 2016	14
Mapping Layers Updated (Part I)	14
Mapping Layers Updated (Part II)	15
Mapping Layers Updated (Part III)	16
Mapping Layers Updated (Part IV)	17
Mapping Layers Updated (Part V)	18
Note:	18
Geographic Information System (GIS) Narratives	19
GIS Key Activities/Updates	19
Intergraph CAD Upgrade	20
MapFlex System	20
MapFlex System ISSUEs	21
Wireless annual audit	22
Request for 9-1-1 jurisdictional boundaries	23
rescue tubes	24
4. SERVICE requests Transactions	25
Open Service Requests – Maui County Psaps - May 2016	25
Note:	25
Maui PSAP Service Request Year-to-Date (YTD) Summary – 2016	25
5. E9-1-1 DATABASE SYNCHRONIZATION	26
Audit Summary Results – 2015-2016 TBA	26



May 1, 2016 - May 31, 2016

Msag audit summary results – June 1, 2016 - March 1, 2016 TBA	26
Invalid MSAG Streets and Address Ranges – ESN x99 Records TBA	26
Automatic Location Identification (ALI) Discrepancy Report TBA	26

May 1, 2016 - May 31, 2016

1. PSAP OPERATIONS

9-1-1 CALL VOLUME MAUI PSAP – MAY 2016

(Source: West Safety Services (Intrado) Viper system

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

	9-1-1 Call Volume																
MAUI PSAP Wireline		Wireless			vo	IP	Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls				
2016	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		No. of Calls with No ALI		No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other Calls	% of Total Calls
MAY	11,672	2,012	17.24%	7,929	67.93%	57.94%	42.06%	295	2.53%	17	0.15%	0	0.00%	1,419	12.16%	0	0.00%

CALL VOLUME MAUI PSAP NOTES:

*Calls with no Ali 0.15% - Statewide average = 0.18% Year 2015

9-1-1 CALL VOLUME MAUI PSAP - CALENDAR YEAR 2016

							9-1-	-1 Call V	olume								
MA	UI PSAP	Wi	reline		Wir	eless		vo	IP	Calls w	vith No LI	Admii	n Calls		doned alls	Other	Calls
2016	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	Other Calls	% of Total Calls
JAN	11,627	2,130	18.32%	7,796	67.05%	60.31%	39.69%	334	2.87%	19	0.16%	0	0.00%	1,348	11.59%	0	0.00%
FEB	9,968	1,941	19.47%	6,639	66.60%	56.64%	43.36%	263	2.64%	7	0.07%	0	0.00%	1,118	11.22%	0	0.00%
MAR	11,240	2,216	19.72%	7,452	66.30%	57.11%	42.89%	262	2.33%	12	0.11%	0	0.00%	1,298	11.55%	0	0.00%
APR	11,162	2,180	19.53%	7,376	66.08%	57.57%	42.43%	249	2.23%	19	0.17%	0	0.00%	1,338	11.99%	0	0.00%
MAY	11,672	2,012	17.24%	7,929	67.93%	57.94%	42.06%	295	2.53%	17	0.15%	0	0.00%	1,419	12.16%	0	0.00%
JUNE																	
JULY																	
AUG																	
SEPT																	
ост																	
NOV																	
DEC																	
YTD	55,669	10,479		37,192				1,403		74		0		6,521		0	
MON AVG	11,134	2,096	18.86%	7,438	66.79%	57.91%	42.09%	281	2.52%	15	0.13%	0	0.00%	1,304	11.70%	0.00	0.00%

Page 5 of 26

May 2016



Maui County E9-1-1 Status Report

May 1, 2016 - May 31, 2016

9-1-1 CALL VOLUME MOLOKAI PSAP - MAY 2016

	9-1-1 Call Volume																
MOLO	KAI PSAP	Wi	reline		Wir	eless		vo	IP	Calls W		Admir	n Calls	Aband Ca		Other	Calls
2016	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		No. of Calls with No ALI		No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other Calls	% of Total Calls
MAY	360	141	39.17%	182	50.56%	52.75%	47.25%	0	0.00%	2	0.56%	0	0.00%	35	9.72%	0	0.00%

CALL VOLUME MOLOKAI PSAP NOTES:

*Calls with no Ali 0.56% - Statewide average = 0.18% Year 2015

9-1-1 CALL VOLUME MOLOKAI PSAP – CALENDAR YEAR 2016

							9-1-	-1 Call V	olume								
MOLO	KAI PSAP	Wi	reline		Wir	eless		vo	IP	Calls w		Admii	n Calls		doned alls	Other	Calls
2016	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	Other Calls	% of Total Calls
JAN	371	109	29.38%	210	56.60%	58.57%	41.43%	6	1.62%	2	0.54%	0	0.00%	44	11.86%	0	0.00%
FEB	337	126	37.39%	178	52.82%	54.49%	45.51%	3	0.89%	2	0.59%	0	0.00%	28	8.31%	0	0.00%
MAR	355	106	29.86%	205	57.75%	45.85%	54.15%	3	0.85%	2	0.56%	0	0.00%	39	10.99%	0	0.00%
APR	435	153	35.17%	232	53.33%	51.29%	48.71%	1	0.23%	2	0.46%	0	0.00%	47	10.80%	0	0.00%
MAY	360	141	39.17%	182	50.56%	52.75%	47.25%	0	0.00%	2	0.56%	0	0.00%	35	9.72%	0	0.00%
JUNE																	
JULY																	
AUG																	
SEPT																	
ост																	
NOV																	
DEC																	
YTD	1,858	635		1,007				13		10		0		193		0	
MON AVG	372	127	34.19%	201	54.21%	52.59%	47.41%	2.60	0.72%	2	0.54%	0	0.00%	38.6	10.34%	0	0.00%

Maui County

May 1, 2016 - May 31, 2016

9-1-1 CALL VOLUME (COMBINED MAUI & MOLOKAI PSAPS) - MAY 2016

	9-1-1 Call Volume																
_	COUNTY SAPs	Wi	reline		Wir	eless		VOIP	Calls	Calls V		Admir	n Calls		doned alls	Other	Calls
2016	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		No. of Calls with No ALI		No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other Calls	% of Total Calls
MAY	12,032	2,153	17.89%	8,111	67.41%	57.82%	42.18%	295	2.45%	19	0.16%	0	0.00%	1,454	12.08%	0	0.00%

9-1-1 CALL VOLUME (COMBINED MAUI & MOLOKAI PSAPS) - CALENDAR YEAR 2016

							9-1-	-1 Call V	olume								
_	COUNTY SAPs	Wi	reline		Wir	eless		VO	IP	Calls v		Admir	n Calls		doned alls	Other	Calls
2016	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		No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other Calls	% of Total Calls
JAN	11,998	2,239	18.66%	8,006	66.73%	60.27%	39.73%	340	2.83%	21	0.18%	0	0.00%	1,392	11.60%	0	0.00%
FEB	10,305	2,067	20.06%	6,817	66.15%	56.58%	43.42%	266	2.58%	9	0.09%	0	0.00%	1,146	11.12%	0	0.00%
MAR	11,595	2,322	20.03%	7,657	66.04%	56.81%	43.19%	265	2.29%	14	0.12%	0	0.00%	1,337	11.53%	0	0.00%
APR	11,597	2,333	20.12%	7,608	65.60%	57.37%	42.63%	250	2.16%	21	0.18%	0	0.00%	1,385	11.94%	0	0.00%
MAY	12,032	2,153	17.89%	8,111	67.41%	57.82%	42.18%	295	2.45%	19	0.16%	0	0.00%	1,454	12.08%	0	0.00%
JUNE																	
JULY																	
AUG																	
SEPT																	
ост																	
NOV																	
DEC																	
YTD	57,527	11,114		38,199				1,416		84		0		6,714		0	
MON AVG	11,505	2,223	19.35%	7,640	66.39%	57.77%	42.23%	283	2.46%	17	0.14%	0.00	0.00%	1,343	11.66%	0	0.00%

PSAP OPERATION NOTES:

- 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) 911 calls are combined in the Call Volume statistic.
- Outgoing 911 calls are included in the totals. These are ringback or callback 911calls made from the Viper System.

May 1, 2016 - May 31, 2016

TEXT TO 911 - CURRENT MONTH - MAY 2016

NOTE:

- Maui County initiated a soft launch of the Text to 911 service on March 15, 2016.
- 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 Chart also includes internal testing of Text to 911 for training purposes.

TEXT TO 911 Ma	ui County PS	APs 2016
Month	Received at Maui	Received at Molokai
January	1	0
February	0	0
March	38	5
April	12	2
May	25	3
June		
July		
August		
September		
October		
November		
December		
YTD	76	10
Monthly Avg.	15.2	2.0

May 1, 2016 - May 31, 2016

WIRELESS PSAP TESTING - MAY 2016

	MAUI COUNTY - MAY 2016									
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:				
5/26/2016	Verizon	3	8	Maui PSAP	Pass					

NOTES:

There was one (1) scheduled Wireless test conducted in May, 2016 for the Maui and Molokai PSAPs.

FOR YOUR INFORMTION

FYI.	For	Your Information	
MLTS (Multi Line '	Telephone Systen	1)

"Most MLTS/PBX systems enable the digits 9-1-1 to be dialed and routed to a Public Safety Answering Point (PSAP). However, the vast majority of these systems do not provide granular location information with the 9-1-1 call to enable emergency responders to know the actual location of the emergency. In many instances a call from the 12th floor of a large office building may only provide the street address of the building. If the caller is unable to provide his or her location and no one else is available to provide assistance, such a lack of location information can prove fatal." (NENA: Multi-Line Telephone System & Private Branch Exchange) Technical Standards & Docs.

PRIMARY	MLTS/PBX 911 CALLS RECEIVED					
PSAPS*	MAY 2016	YEAR TO DATE 2016				
Oahu	3,594	17,315				
Hawaii	61	307				
Maui	89	493				
Molokai	0	1				
Kauai	16	114				
Total**	3,760	18,230				

^{*}PSAP totals does not include Military 911 calls.

Page 9 of 26

^{**} Total numbers are a minimum estimated count. Presently, CENTRX & VoIP call volumes are combined with Multi & Single line systems and were not added to the total MLTS 911 calls.

May 1, 2016 - May 31, 2016

2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR - MAY 2016

MAUI	9-1-1 TRANSACTIONS									
COUNTY		MSAG	ALI Submitted			Discr	Customer			
2016	Total	MSAG (A)	TN CR (B)	ALI DR (C)	VoIP (D)	TNCR	ALI DR	VoIP DR	Addresses Affected	
JANUARY	176	8	167	0	1	1,893	0	0	173	
FEBRUARY	148	13	135	0	0	2,026	0	0	158	
MARCH	79	14	65	0	0	1,938	0	0	170	
APRIL	132	25	107	0	0	1,795	0	0	895	
MAY	79	45	31	3	0	1,281	0	0	726	
JUNE										
JULY										
AUGUST										
SEPTEMBER										
OCTOBER										
NOVEMBER										
DECEMBER										
TOTAL YTD	614	105	505	3	1				2,122	
AVG PER MONTH	123	8	167	0	1				173	

Definitions

(A) Master Street Address Guide - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.

- (B) **T**elephone **N**umber **C**hange **R**equest Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 399/359 attached to them which indicates the need for validation.
- (C) **A**utomatic **L**ocation **I**nformation **D**iscrepancy **R**ecord 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.



May 1, 2016 - May 31, 2016

MSAG CURRENT MONTH NOTES:

A total of **79** MSAG transactions were processed in 9-1-1 Net during the month of May 2016. Forty-five (**45**) requests were processed relating to the MSAG database changes 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 inserting new MSAG records.

There were 726 customer ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

31 Telephone Number Change Requests (TN CR) transactions were processed in 9-1-1 Net with valid MSAG addresses, as a result of the ESN 399 clean-up effort. ESN 399 TN CRs must be validated against HT records and approved by the end user Hawaiian Telcom customer before updating the ALI record. Akimeka is awaiting feedback from Intrado on the TN CRs that have been submitted for correction. In April 2016, there were 570 TN CRs completed and as a result, sixteen (16) ESN 399 street records were deleted from the MSAG database. Three (3) ALI DRs were submitted as the result of 9-1-1 calls from residences in Pukalani and Kula, and a business in Kaanapali. Maui PSAP submitted the request to Akimeka to update the customer information and the discrepancies were corrected in 9-1-1 Net.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- There are 1,281 Open TN CR Transactions as of May 31, 2016.
- Refer to chart in the next section "TNCR Current Status"

1,226 Open TN CR transactions are a direct result of the ESN 399 clean-up and are awaiting approval from Hawaiian Telcom, Inc. **55** Open TN CR transactions are a result of the Dispatchable Location project submitted in September. (Refer to the "Dispatchable Location" chart below) Akimeka continues to monitor and track the progress of the Referred records. Once a telephone number is submitted to Intrado for correction, it must be verified against HT records and/or approved by the customer. Intrado's internal process requires calling each telephone customer individually for approval to update an address in the 9-1-1 database.

- There are no ALI DRs Open as of May 31, 2016
- There are no VoIP DRs Open as of May 31, 2016



May 1, 2016 - May 31, 2016

TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS - MAY, 2016

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 (Intrado) 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)								
County	TOTAL TNCR RECORDS SUBMITTED BY AKIMEKA	RECORDS SUBMITTED BY SAFETY SERVICES PENDING FURTHER ACTION BY WEST SAFETY SERVICES REFERRED TO TELCO BY WEST SAFETY SERVICES TOTAL UNOPENED TNCR RECORDS						
MAUI	1,007	95	83	829				
MOLOKAI	274	18	20	236				
TOTAL	1,281	113	103	1065				

STATUS

TOTAL TNCRs SUBMITTED - The total number of TNCR requests for modification that have been submitted in 9-1-1 NET.

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 (Intrado) Data Analysts assigns this status to a TNCR and the request is referred to the telephone service providers for further research.

<u>TOTAL UNOPENED TNCR RECORDS STATUS</u> - 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.



May 1, 2016 - May 31, 2016

DISPATCHABLE LOCATION - STATUS AS OF - MAY 2016 - PENDING

NARRATIVE:

During the August 2015 State of Hawaii 911 Board meeting, Akimeka provided a "State of Hawaii PSAPs Proposed ALI Compliancy with FCC 15-9" presentation. Based on the 9-1-1 Board's confirmation to add the "Dispatchable Location" information into the ALI database, Akimeka researched the format standards of each pertinent field, and tested the delivery of the data to the PSAP. After a few configuration adjustments (eliminating the TelCo comments field from appearing on the ALI Screen), Akimeka standardized an additional information data format to proceed with this project.

During the month of August 2015, Akimeka started a pilot project, entering additional location information to a verified MSAG address with multiple telephone numbers. Specifically the Queen Kaahumanu Shopping Center at 275 Kaahumanu Ave. The "Dispatchable Location" data is entered into the "Driving Directions" field in the 9-1-1 Net system, and will display on the Viper Power 911 ALI Screen in the "Exact" field should a 911 call be received from that telephone number. Screen shots of the "Before" ALI screen, and the "After" ALI screen with the updated "Dispatchable Location" information visible, were presented to the Dispatch Supervisors. Akimeka received positive feedback from the 911 Dispatch Personnel because the information that the 911 Call Takers will receive, will certainly cut down on the process of determining the exact location of the 911 caller. In addition to this, Akimeka was informed that the Mobile Dispatch Terminals (MDTs) in the Police Vehicles, also are able to view this "Dispatchable Location" information which will reduce the response times for Public Safety. In September, the Dispatchable Location transactions have been temporarily stopped. Transactions have not been updated in 9-1-1 Net pending research by Hawaiian Tel and West Safety Services (Intrado) for providing an additional 60 character field in the ALI data stream to accommodate Dispatchable Location information as an alternative to using the "Driving Directions" field. Until this field is created, no further Dispatchable Location transactions will be submitted. There are currently 675 transactions prepared for submission. However, present observations indicate that previous transactions that were submitted in 2015 are currently being processed.

Dispatchable Location								
Common Name Place	MSAG Address		Number of TNCR* Transactions Prepared	Number of TNCR* Transactions Submitted	Number of Transactions Processed**			
Queen Kaahumanu Center	Carryover from 2015			368	299			
		Jan		0	0			
		Feb		0	0			
Lahaina Outlets	900 Front St, Lahaina	Mar	155	0	6			
Maui Mall	70 E Kaahumanu Ave, Kahului	IVIAI	88	0	0			
Shops at Wailea	3750 Wailea Alanui Dr, Wailea		255	0	0			
Shops at Walled			177	0	8			
		Total	675	368	313			

Definition

Dispatchable Location is defined in the FCC 15-9 Docket as the verified or corroborated street address of the calling party plus additional information such as floor, suite, apartment or similar information that may be needed to adequately identify the location of the calling party.

TNCR* Telephone Number Change Request - Transactions submitted to Intrado to update/edit Dispatchable Location in the Exact field on the ALI Screen.

Processed** may include inactive telephone numbers that were removed from the ALI Database.

Page 13 of 26

May 2016

Maui County E9-1-1 Status Report

May 1, 2016 - May 31, 2016

3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – MAY 2016

MAPPING LAYERS UPDATED (PART I)

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

MAUI COUNTY								
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks					
	CRITICAL 9-1-1	PUBLIC SAFET	Y LAYERS FOR DISPATCH & RESPONSE					
	(Listed Alphabetically)							
	5/31/2016		Spatially corrected twenty-two (22) address points in Wailea					
	5/31/2016		Spatially corrected two (2) address points in Makawao					
	5/31/2016		Added one (1) address in Haiku					
	5/31/2016		Added one (1) address in Kaanapali					
	5/31/2016		Added two (2) addresses in Kula					
	5/31/2016		Added one (1) address in Makawao					
	5/31/2016		Added one (1) address in Pukalani					
	5/31/2016		Added sixty-two (62) addresses in Kahului					
		05/25/16						
	5/25/2016		Added one (1) address in Hana					
	5/24/2016		Added two (2) address points in Haiku					
	5/24/2016		Added one (1) address in Kula					
	5/24/2016		Added one (1) address in Pukalani					
	5/24/2016		Added one (1) address in Lahaina					
	5/23/2016		Spatially corrected six (6) address points in Wailea					
	5/20/2016		Added one (1) address in Hana					
Address Points	5/20/2016		Changed Location Name for two (2) addresses in Lahaina					
Address I offits	5/20/2016		Spatially corrected one (1) address point in Napili					
	5/20/2016		Added two (2) addresses in Napili					
	5/20/2016		Added one (2) address in Wailea					
	5/19/2016		Added one (1) address in Hana					
		05/11/16						
	5/10/2016		Added four (4) addresses in Haiku					
	5/10/2016		Added two (2) addresses in Hana					
	5/10/2016		Added one (1) address in Hoolehua					
	5/10/2016		Added one (1) address in Kaunakakai					
	5/10/2016		Added two (2) addresses in Pukalani					
	5/10/2016		Added one (1) address in Waikapu					
	5/10/2016		Spatially corrected one (1) address points in Waikapu					
	5/5/2016		Spatially corrected two (2) address points in Kula					
	5/5/2016		Added one (1) address in Kualapuu					
	5/5/2016		Added one (1) address in Kula					
	5/4/2016		Spatially corrected one (1) address point in Wailuku					
	5/4/2016		Spatially corrected eleven (11) address points in Wailea					

- 100 - 1 11

Maui County



May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART II)

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

	MAUI COUNTY					
Type of Layer	Akimeka GIS Server Date GIS Date Created/ Delivered Edits Performed		Other/Remarks			
	CRITICAL 9-1-1	PUBLIC SAFET	Y LAYERS FOR DISPATCH & RESPONSE			
		(Listed	d Alphabetically)			
	5/3/2016		Spatially corrected four (4) address points in Wailea			
	5/2/2016		Spatially corrected one (1) address point in Wailuku			
Address Points	5/2/2016		Added two (2) addresses in Wailuku			
	5/2/2016		Added one (1) address in Haiku			
	5/2/2016		Added two (2) addresses in Kualapuu			
Airports						
Bridges						
Building Footprints						
Bus Stops						
Churches						
	5/31/2016		Changed three (3) coastal names in Kihei			
	5/31/2016		Changed one (1) coastal name in Paia			
		05/25/16				
	5/24/2016		Changed two (2) coastal names in Paia			
		05/11/16				
Coastal Names	5/11/2016		Added one (1) coastal name in Kaanapali			
Coastai Names	5/11/2016		Added one (1) coastal name in Kahului			
	5/11/2016		Added two (2) coastal names in Kapalua			
	5/11/2016		Added one (1) alias in Kapalua			
	5/11/2016		Added four (4) coastal names in Kihei			
	5/11/2016		Added five (5) coastal names in Paia			
	5/11/2016		Added three (3) coastal names in Wailea			
Coastline						
Common Places						
Correctional Facilities						
Emergency Callboxes						
Emergency Operation Centers						
Emergency Shelters						
ESZ/ESN						
Fire Beats						
Fire Districts						
Fire Response Areas						
Fire Stations						
Food & Beverage						

May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART III)

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

	MAUI COUNTY						
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks				
	CRITICAL 9-1-1		TY LAYERS FOR DISPATCH & RESPONSE				
		(Liste	d Alphabetically)				
Gas Stations							
Gate Codes							
Government Buildings							
Harbors							
Helipads							
Hiking Trails							
Hospitals							
Hydrants							
Hyrdology Layers							
Incident Response Areas							
Lodging							
Major Roads							
Medic Beats							
Medic Districts							
Medic Response Areas							
Medic Stations							
Medical Facilities							
Milepost Markers							
MSAG Communities							
Net Junctions							
Ocean Rescue Boundaries							
Ocean Safety							
Parcels							
Parks							
Parks Polygon							
		05/25/16					
	5/24/2016		Changed alias for three (3) POI in Kihei per Maui Dispatch				
	5/24/2016		Changed alias for three (3) POI in Paia per Maui Dispatch				
	5.2 5.25	05/11/16					
Points of Interest	5/5/2016		Added one (1) alias in Kaanapali				
2 dans di interest	5/5/2016		Added one (1) alias in Kahului				
	5/5/2016		Added one (1) alias in Kapalua				
	5/5/2016		Added one (1) POI in Kapalua				
	5/5/2016		Added three (3) alias in Kihei				
	3/3/2010		ridada unida (a) alias in milia				

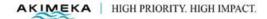


May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART IV)

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

		MA	AUI COUNTY					
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks					
	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)							
Points of Interest	5/5/2016 5/5/2016 5/5/2016 5/5/2016		Added one (1) alias in Paia Added two (2) POI in Paia Added one (1) alias in Wailea Added House Number to one (1) POI address in Paia					
Police Beats	5/5/2016		Added two (2) POI in Wailea					
Police Districts								
Police Response Areas								
Police Stations								
Post Offices								
Schools								
	5/31/2016 5/31/2016 5/31/2016		Added three (3) street centerline segments in Kahului Modified range for eleven (11) street centerline segments according to newly assigned addresses in Kahului Split one (1) street centerline in Kahului					
	0,01,2010	05/25/16	opin one (1) du oct contentino in realitate.					
Street Centerlines	5/25/2016 5/24/2016 5/23/2016 5/13/2016		Spatially corrected two (2) street centerline segments in Wailea Spatially corrected thirteen (13) street centerline segments in Wailea Spatially corrected five (5) street centerline segments in Wailea Spatially corrected four (4) street centerline segments in Wailea					
	5, 15, 2010	05/11/16	produced to the control of the contr					
	5/10/2016 5/5/2016 5/5/2016 5/4/2016 5/3/2016 5/2/2016		Spatially corrected six (6) street centerline segments in Wailea Spatially corrected seven (7) street centerline segments in Kihei Spatially corrected eight (8) street centerline segments in Wailea Spatially corrected twenty-one (21) street centerline segments in Kihei Spatially corrected eighteen (18) street centerline segments in Wailea Spatially corrected eight (8) street centerline segments in Wailea					
Subdivisions	5, 2, 20.0							
Tow Jurisdictions								
Tsunami Evacuation Zones								
Tsunami Heights								
Waste Water Plants								



May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART V)

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

	MAUI COUNTY						
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks				
	CRITICAL 9-1-1	PUBLIC SAFET	TY LAYERS FOR DISPATCH & RESPONSE				
		(Liste	d Alphabetically)				
	5/27/2016		Per ATT CRS				
		05/25/16					
WSP Cell Sectors	5/23/2016		Per VZW CRS				
		05/11/16					
	5/6/2016		Per VZW CRS				
	5/27/2016		Per ATT CRS				
		05/25/16					
WSP Cell Towers	5/23/2016		Per VZW CRS				
		05/11/16					
	5/6/2016		Per VZW CRS				

NOTE:

• The Parcels layer is provided by Maui County. Akimeka performs edits on the spatial information of the layer for 9-1-1 purposes. Changes to the attribute table are made when needed. The Parcels layer uploaded to the PSAP GIS server is intended for 9-1-1 purposes only and should not be disseminated to other county agencies.



May 1, 2016 - May 31, 2016

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
5/25/2016	Prepared and delivered the following data for an Intergraph CAD map update: Maui Cell Coverage .csv, .str, .rte and .map which included updated Address Points, Coastal Names, Common Places Lookup Table, Street Centerlines and WSP Cell Towers
5/25/2016	Prepared and delivered the following data for a MapFlex update: Address Points, Coastal Names, Points of Interest, Street Centerlines, WSP Cell Sectors and WSP Cell Towers
5/11/2016	Delivered the following data for a MapFlex update: Address Points, Coastal Names, Points of Interest, Street Centerlines, WSP Cell Sectors and WSP Cell Towers
5/11/2016	Delivered the following data for an Intergraph CAD map update: Maui Cell Coverage .csv, .str, .rte and .map which included updated Address Points, Coastal Names, Common Places Lookup Table, Street Centerlines and WSP Cell Towers
5/10/2016	Prepared the following data for a MapFlex update: Address Points, Points of Interest, Street Centerlines, WSP Cell Sectors and WSP Cell Towers
5/10/2016	Prepared the following data for an Intergraph CAD map update: Address Points, Common Places Lookup Table, Street Centerlines and WSP Cell Towers

Page 19 of 26



May 1, 2016 - May 31, 2016

INTERGRAPH CAD UPGRADE

From April through June 2014, the Maui Police Department worked to upgrade their Intergraph CAD system to the more recent 2014 version. Through this upgrade process, new improvements were identified and the overall functionality of the system from the Map Build process to the Production workstation made significant enhancements in order to streamline the deliverables and continue providing accurate data to the PSAP.

- 1. On May 11, 2016, the following data was delivered for an Intergraph CAD Map update:
 - a. Address Points, Coastal Names, Common Places Lookup Table, Street Centerlines and WSP Cell Towers.
 - b. .map, .str, .rte, CAD Map Build database and Cell Coverage.csv
- 2. Akimeka delivered an updated Intergraph CAD map on May 25, 2016 which included:
 - a. Address Points, Coastal Names, Common Places Lookup Table, Street Centerlines and WSP Cell Towers.
 - b. .map, .str, .rte, CAD Map Build database and Cell Coverage.csv

During June 2016, the Intergraph CAD map will continue to be delivered on a bi-monthly basis, which has been coordinated with all mapping system updates and synchronizations with other 911 databases.

MAPFLEX SYSTEM

During the month of May 2016, the MapFlex system performed without any issues and deliverables continued on schedule.

Considering that the MapFlex initiative being provided by Hawaiian Telecom and sub-contractor, Intrado, 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 year.

During the month of May 2016, there were continued GIS deliverables into the MapFlex system for Hawaii County, Maui County, Kauai County, and Honolulu Civilian PSAPs. The MapFlex deployment has been concluded and is now considered a running system capable of receiving updates regularly.

- 1. Akimeka delivered GIS data to the MapFlex system on the following dates in May 2016
 - a. **Hawaii County** May 10th and May 24th
 - b. **Maui County** May 11th and May 25th
 - c. Kauai County May 12th and May 26th
 - d. Honolulu May 13th and May 27th



May 1, 2016 - May 31, 2016

MAPFLEX SYSTEM ISSUES

During the month of March 2016, there were some identified addresses not present within the MapFlex system. Throughout the months of March and May, Akimeka and MPD worked closely to identify what data is the most current in the system and when the updated GIS data will be available in the MapFlex. Akimeka coordinated several times with West (formerly Intrado) to correct the issue.

- On April 6th, 2016, Akimeka was contacted by West. West identified that there was a blockage from the deliverable sent because
 the delivery file had an extra space in the name. However, after the system was cleared, a blockage acquired again because the
 delivery file was incorrectly named.
- 2. On April 19th, Akimeka sent new addresses that were part of the April 13th delivery for Maui Dispatch to test. The data still appeared to not be available in the MapFlex throughout the month of April 2016.
- 3. On May 13, 2016, Maui Dispatch confirmed that the delivery of updated data from Akimeka on May 11, 2016 was successfully updated and all updated information was available in the MapFlex.

As a separate issue during the month of May 2016, the Maui Police Department had some issues occur with the MapFlex system display. The screens appeared to be blank. The issue was isolated to only the Maui Police Department. Molokai Police Department was still up and running.

- 1. On May 23, 2016 at approximately 4:00 PM, the Maui Police Department lost all functions of their MapFlex System. Hawaiian Telcom confirmed that the MapFlex screens were white with no map or raster data. The issue was escalated immediately to West for support.
- 2. Later the same day on May 23, 2016 at 8:35 PM, the MapFlex functionality was restored. Hawaiian Telcom relayed that the changes from that day's GIS update were rolled back and West would assist in investigating whether that morning's GIS update had any relationship to the issue occurring.
 - a. West and Hawaiian Telcom had decided to add another server, thereby separating the consoles to help alleviate the possibility of something similar occurring in the future.
 - b. While Hawaiian Telcom and West investigate the cause, they decided to suspend all map updates.
- 3. The Maui Police Department and Akimeka briefly discussed the issue the following day. Akimeka mentioned that the GIS update was not scheduled until May 25th, two (2) days after the issue had occurred.
 - a. Confirmation from Maui on the previous GIS deliverable on May 11, 2016 was successful and had not caused any system issues for 13 days until MapFlex issues were experienced.
- 4. Throughout the remainder of May 2016, it appeared there were no further issues identified and the root cause of the issue is still being looked at.



May 1, 2016 - May 31, 2016

WIRELESS ANNUAL AUDIT

During the month of February 2016, the wireless annual audit for Verizon was coordinated and completed as indicated in the Wireless Audit Chart. However during the audit process, it was identified that changes which had been sent through the CRS process for all WSPs were possibly not making their way back to the wireless FMCC database (responsible for information provided via the ALI).

- 1. On February 29, 2016, after completing the review of the Annual Audit for Verizon wireless Akimeka contacted West to discuss the reason why the annual audit synchronization has degraded in the match accuracy.
 - a. Note The CRS process performed throughout the year for all WSPs deals with routine maintenance performed on the sites/sectors. The Annual Audit is intended to identify any possible gaps in that process and seeks reconciliation in an effort to re-synchronize the databases. If there are no missed CRSs throughout the year and the database match percentage decreases, then there are apparent issues.
- 2. On March 15, 2016, Akimeka and West held a conference call to discuss the matter. During the conversation it was identified that the changes sent back from Akimeka to West after accuracy validation, are processed into the FMCC. The issue that Akimeka is seeing when the Annual Audit is provided is resulting from a script West put in place in 2013 to output the CRSs into the approved format at that time.
 - a. The issue is that the format has changed over time due to new technology and more hexadecimal numbering of the wireless sectors. In order to accommodate those changes, Akimeka has developed a translation into an applicable format which the PSAPs are able to use. The format that West is providing each Annual Audit and CRS is overriding the changes within the FMCC, therefore give the appearance of not being synchronized in that process but are. This helps to explain why the wireless testing results are accurate, and the PSAPs are not experiencing a large number of discrepancies in the Mapping Systems when matched with the ALI.
- 3. Akimeka followed up with West on March 30, 2016, to see if West has re-scripted the format.
 - a. West replied that unfortunately it will require system development at West. Melissa Norton of West did mention that the particular system that needs to be changed is currently backlogged with a few large projects. She opened a Product Development Request at West but there is no ETA on the enhancement. In order to speed up the request, she is working to bundle the request with several other State's requests.
- 4. Akimeka will continue to follow up on the process to ensure the wireless databases are maintained accurately. With the big push by the WSPs for more LTE sites, which are having the impact on the hexadecimal numbering, Akimeka is hopeful that West can resolve this issue. The additional work involved to re-validate information takes a significant effort and allows for discrepancy. The Annual Audit is supposed to be a raw comparison to the condition of the data in both the FMCC and the GIS database provided in the Mapping Systems. Without both in its raw format, the comparison becomes unclear as to the real condition of the FMCC database.
- 5. Throughout the month of April 2016, Akimeka had been provided several TVWs by the WSPs for testing and most of the information was good for testing but there was an unusually high number of records that were either missing or were incorrect. Virtually all TVWs sent to Akimeka had some variety of discrepancy in them. This was only applicable to Verizon at the time and since the Annual Audit with Verizon had been completed, bringing the databases to 100% match rate, a reason for the mismatch in TVW information was perplexing. It certainly required more investigation into what was occurring.
- 6. On April 21, 2016, Akimeka was notified of yet another set of TVWs with issues and the WSP and West investigated their end and said everything was matching. Because the Annual Audit was completed, matching West and Akimeka databases, but yet the TVWs produced from the West database were not matching, something was highly unusual.
 - a. Later the same day, Akimeka provided an example of the discrepancy back to West detailing one of the records along a timeline. Information provided in the TVW matched with the record from 2015. Since that time, there were

May 1, 2016 - May 31, 2016

several updates, including the Annual Audit. This indicated that the TVWs being generated by West were not accurate and it also was indicating the Annual Audit sent back to West was not be uploaded. This is a major issue.

- 7. To confirm Akimeka's suspicion that the Annual Audit updates were not being uploaded by West into the FMCC, Akimeka followed up with implementation specialist at West, who the Audit was coordinated with.
 - a. West sent a reply on April 25, 2016, that the audit was not fully completed at West and they were in their final stages before sending changes to the database and on to Verizon. From West "there were a lot of changes that came from the audit which is where you may be seeing the discrepancies. Once Verizon has called in the hot cuts (changes), the data should match the audit sheet you sent".
 - b. This was confirmation that the audit was still not being processed fully by West after 2 months and that the issues with mismatched information in the TVWs were as a result of this.
- 8. On May 23, 2016, Akimeka, West, and Verizon held a conference call to discuss the issue in more detail.
 - a. West provided a brief that indicated the Verizon Annual Audit was complete and that the West FMCC database and the Verizon TVWs match.
 - b. Akimeka used several examples of changes which have occurred more recently (all during 2016 year), which were missing or outdated in both the West and Verizon databases.
 - c. West agreed that they must be behind in processing the changes Akimeka sends to them via the CRSs and the Annual Audit.
 - d. Akimeka brought up several concerns regarding the length of time it is taking West to process the changes and the inability to monitor the changes that occur with every site and sector. Akimeka mentioned that in all of the examples provided where the TVWs were incorrect, Akimeka has been able to pull every change which has occurred to that record. Akimeka maintains an extensive archive of all additions, changes, and deletes dating back in many cases more than 5 years. Akimeka also mentioned that we perform updates based on a change triggered by the WSPs. There is no other form of change that occurs outside of the mechanisms communicated to Akimeka by both West and the WSPs via the CRS or Annual Audits.
 - e. It was agreed that West would follow up with their one (1) resource assigned to the annual audit and see why this has taken almost three months to complete.
 - i. Note the review and update process completed by Akimeka took six (6) business days to complete.
- 9. There were no further follow up discussions or reports by West throughout the remainder of May 2016

REQUEST FOR 9-1-1 JURISDICTIONAL BOUNDARIES

On March 17, 2016, West had requested information for each of the PSAPs in the State of Hawaii, with the exception of the Honolulu Police Department and Regional Dispatch Center. Akimeka has followed up with West to see if the Honolulu Police Department PSAP was supposed to be included in this request.

- 1. On March 17, 2016, West requested that each PSAP fill out an attached questionnaire and to provide the PSAP Jurisdictional Boundaries (to include VoIP, Wireless, Text, and Alarms).
- 2. Akimeka prepared the boundaries of each of the PSAP Jurisdictional Boundaries which included all requested attribution. Given the geography of the Hawaiian Islands, and the operational responses of each PSAP which includes ocean responses, Akimeka included a buffer for each of the PSAP Boundaries that extend into the ocean. This reflects the true nature of the PSAP Jurisdictional Boundary response area and also covers the distance over water which can account for possible Lat/Longs provided during a Text-to-911 call to the PSAP. Since the system is intended to use the location information to determine routing, inclusion of the water area into the PSAP polygons was a more accurate approach.

Page 23 of 26

May 1, 2016 - May 31, 2016

- 3. On March 23, 2016, the Akimeka GIS Manager notified West that this information was ready and requested a secure method of transferring the data. Throughout the remainder of March 2016, there was no reply from West.
- 4. On April 19, 2016, West followed back up with the Akimeka GIS Manager. The West employee was unfamiliar with using an ftp site and was going to touch base with her supervisors to find a more secure manner of transferring the data. Throughout the remainder of April 2016, Akimeka did not hear back.
- 5. On May 6, 2016, West sent Akimeka a notification that their ftp site was ready for data to be sent now.
- 6. On May 9, 2016, Akimeka uploaded the PSAP Jurisdictional Boundary data onto the West ftp site and requested confirmation once they receive the data.
- 7. On May 19. 2016, Akimeka received a phone call from West notifying that the data was accepted.

RESCUE TUBES

On April 18th, 2016 Akimeka created a Rescue Tubes layer as requested by the Maui Police Dispatch Center. The data was provided by Kaanapali Operations Association. The data provided included Rescue Tube number, latitude and longitude and a physical location for each tube. There are twenty-seven rescue tube locations in the Lahaina and Kaanapali area. This layer was included in the Intergraph CAD map with the April 27th, 2016 deliverable. There were no further updates in May, 2016.

May 1, 2016 - May 31, 2016

4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS – MAUI COUNTY PSAPS - MAY 2016

	MAUI COUNTY									
#	# Date Ticket # Description PSAP Urgency Comments									
			NONE							

NOTE:

There are no Open Service Requests for the Maui County PSAPs for May, 2016.

MAUI PSAP SERVICE REQUEST YEAR-TO-DATE (YTD) SUMMARY - 2016

	MAUI COUNTY					MSAG SERVICE REQUEST CATEGORIES				
2016	TOTAL		0	WIRE	WIRELINE		LESS	VolP		
2016	Created	Closed	Open	Created	Closed	Created	Closed	Created	Closed	
2015 Carryover*			0							
January	1	1	0	0	0	0	0	1	1	
February	0	0	0	0	0	0	0	0	0	
March	0	0	0	0	0	0	0	0	0	
April	1	1	0	1	1	0	0	0	0	
May	3	3	0	3	3	0	0	0	0	
June										
July										
August										
September										
October										
November	·	·	•							
December										
TOTAL	5	5	0	4	4	0	0	1	1	

	* The 2015 Carryover row indicated the number of Service Requests that were opened in 2015 and brought forward into
Note:	2016 in an effort to track the service request until completion.
	Detailed information on service tickets are available upon request.

	Category	Description
Definitions:	Wireline	Telephone Number (ALI) Discrepancies from land line phones that have been submitted to
	vvireille	West Safety Services (Intrado) via 9-1-1 Net for correction.
		Telephone Number (ALI) Discrepancies from phones that were land lines at one time, and were
<u> </u>	Wireless	ported out to a wireless carrier. However, the phone number was never removed from the
		MSAG database.
	VoIP	Telephone Number (ALI) Discrepancies from VoIP phones that have been submitted to Time
	VOIP	Warner Cable (TWCBL) for correction



May 1, 2016 - May 31, 2016

5. E9-1-1 DATABASE SYNCHRONIZATION

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

Next Scheduled Database Synchronization is June 2016

AUDIT SUMMARY RESULTS - 2015-2016 -- TBA

MSAG AUDIT SUMMARY RESULTS – JUNE 1, 2016 - MARCH 1, 2016 -- TBA

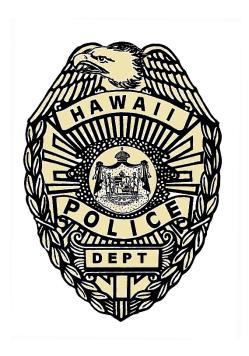
INVALID MSAG STREETS AND ADDRESS RANGES - ESN X99 RECORDS -- TBA

AUTOMATIC LOCATION IDENTIFICATION (ALI) DISCREPANCY REPORT -- TBA

Maui County May 2016

Page 26 of 26

May 1, 2016 - May 31, 2016



May 1, 2016 – May 31, 2016

AKIMEKA | HIGH PRIORITY, HIGH IMPACT.

TABLE CONTENTS

1.	PSAP Operations	5
	9-1-1 Call Volume Hawaii County PSAPS – May 2016	5
	Call Volume Hawaii County PSAP Notes:	5
	9-1-1 Call Volume – Calendar Year 2016	5
	9-1-1 Call Volume by Agency – May 2016	6
9	9-1-1 Call Volume by Agency – Calendar Year 2016	6
	PSAP Operation Notes:	6
,	Text to 911 – current month – May 2016	7
	Note:	7
	Note:	7
,	Wireless PSAP TESTING – May 2016	8
	Notes:	8
]	For Your Information	8
2.	MSAG (Master street address guide)	9
]	MSAG TRANSACTIONS Current Month/year – MAY 2016	9
	MSAG Current Month Notes:	10
	Telephone Record (Ali) Transactions current month notes:	10
	open TELEPHONE RECORD (ALI) discrepancy Status:	10
,	TNCR (Telephone Number Change Request) Current Status – May 2016	11
	Note:	11



May 1, 2016 – May 31, 2016

	DISPATCHABLE LOCATION - Status as of - May 2016 - "pending"	12
	Narrative:	12
3.	Geographic Information System (GIS) – May 2016	13
	Mapping Layers Updated (Part I)	13
	Mapping Layers Updated (Part II)	14
	Mapping Layers Updated (Part III)	15
	Mapping Layers Updated (Part IV)	16
	Mapping Layers Updated (Part V)	17
	Geographic Information System (GIS) Narratives	18
	GIS Key Activities/Updates	18
	Address Points and Street Centerlines Update Comparison	18
	Note:	18
	POLICE BEAT REVIEW	19
	CAD SYSTEM DEPLOYMENT	20
	FIRE RESPONSE AREA REVIEW	20
	MILE MARKER PROJECT	21
	Wireless annual audit	22
	Request for 9-1-1 jurisdictional boundaries	23
	MapFlex System	24
4.	Service requests Transactions	24
	Open Service Requests – May 2016	24
	Note*	25
	Service Request Year-to-Date (YTD) Summary – 2016	25
5.	E9-1-1 DATABASE SYNCHRONIZATION	25
	Audit Summary Results – May 2016	26
	Audit Summary Results – continued	27



May 1, 2016 – May 31, 2016

Audit Summary Results Comparision – May 1, 2016 VS February 1, 2016	27
Note:	
Audit Summary Results	
Comparison Notes:	
Invalid MSAG Streets and Address Ranges – ESN x99 Records	
Automatic Location Identification (ALI) Discrepancy Report	29

May 1, 2016 – May 31, 2016

1. PSAP OPERATIONS

9-1-1 CALL VOLUME HAWAII COUNTY PSAPS - MAY 2016

(Source: West Safety Services (Intrado) Viper system

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

	9-1-1 Call Volume																
HAWAII COUNTY PSAPs		Wire	eline	line Wireless		less		VOIP			ALI Admir		n Calls	Calls Abandone Calls		Other Calls	
2016	Total 9-1-1 Calls Processed		% 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
MAY	17,343	3,048	17.57%	12,121	69.89%	45.67%	54.33%	798	4.60%	17	0.10%	0	0.00%	1,359	7.84%	0	0.00%

CALL VOLUME HAWAII COUNTY PSAP NOTES:

The percentage of Wireless Phase 2 calls (54.33%) has increased from the number of Wireless Phase 1 calls (45.67%) in May 2016.

⁸911 Calls with no Ali = 0.10% - Statewide average = 0.18% Year 2015

9-1-1 CALL VOLUME - CALENDAR YEAR 2016

							9-1-1	Call Vo	lume								
	HAWAII COUNTY PSAPs Wireline		eline	Wireless			VOIP		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls		
2016	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
JAN	17,958	3,445	19.18%	12,221	68.05%	47.61%	52.39%	812	4.52%	27	0.15%	0	0.00%	1,453	8.09%	0	0.00%
FEB	16,976	3,046	17.94%	11,851	69.81%	48.47%	51.53%	707	4.16%	18	0.11%	0	0.00%	1,354	7.98%	0	0.00%
MAR	18,750	3,605	19.23%	12,790	68.21%	47.43%	52.57%	822	4.38%	12	0.06%	0	0.00%	1,521	8.11%	0	0.49%
APR	17,112	3,074	17.96%	12,026	70.28%	46.50%	53.50%	707	4.13%	21	0.12%	0	6.24%	1,284	7.50%	0	2.30%
MAY	17,343	3,048	17.57%	12,121	69.89%	45.67%	54.33%	798	4.60%	17	0.10%	0	0.00%	1,359	7.84%	0	0.00%
JUNE																	
JULY																	
AUG																	
SEPT																	
ОСТ																	
NOV																	
DEC																	
YTD	88,139	16,218		61,009				3,846		95		0		6,971		0	
MON AVG	17,628	3,244	18.38%	12,202	69.25%	47.14%	52.86%	769	4.36%	19	0.11%	0	1.25%	1,394	7.90%	0	0.56%

Page 5 of 30

Hawaii County May 2016

May 1, 2016 – May 31, 2016

9-1-1 CALL VOLUME BY AGENCY - MAY 2016

		9-1-1 Call Volume by Agency												
2016		Hawaii	Police De	partment	Hawaii Fire Department									
2010	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Abandoned Dropped Calls	Number of Other Calls	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Abandoned Dropped Calls	Number of Other Calls				
May	13,866	79.95%	0	1,333	0	2,118	12.21%	0	26	0				

9-1-1 CALL VOLUME BY AGENCY - CALENDAR YEAR 2016

		9-1-1 Call Volume by Agency												
2016		Hawaii	Police De _l	partment		Hawaii Fire Department								
2016	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Abandoned Dropped Calls	Number of Other Calls	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Abandoned Dropped Calls	Number of Other Calls				
January	14,138	78.73%	0	1,427	0	2,367	13.18%	0	26	0				
February	13,259	78.10%	0	1,331	0	2,363	13.92%	0	23	0				
March	15,966	85.15%	0	1,461	0	2,784	14.85%	0	60	0				
April	13,624	79.62%	0	1,243	0	2,204	12.88%	0	41	0				
May	13,866	79.95%	0	1,333	0	2,118	12.21%	0	26	0				
June														
July														
August														
September														
October														
November														
December														
YTD	70,853		0	6,795	0	11,836		0	176	0				
MON AVG	14,171	80.31%	0	1,359	0	2,367	13.41%	0	35	0				

PSAP OPERATION NOTES:

- 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 total of Wireline and Wireless counts respectively.
- All VOIP (Voice over internet protocol) types of 911 calls are combined in the Call Volume statistic.

Hawaii County May 2016

May 1, 2016 – May 31, 2016

TEXT TO 911 - CURRENT MONTH - MAY 2016

NOTE:

- Hawaii County deployed a soft launch of Text to 911 on February 1, 2016.
- Sprint PCS conducted a Text to 911 test with the Hawaii Police 911 PSAP on February 1, 2016. During the test, the location received at the PSAP from the 911 texting device was a "Coarse Location" (centroid of a sector coverage area) plot, several miles away from the texter's actual location.
 - 911 Text message was transferred to the Hawaii Fire Department successfully as part of the test agenda. Additional Text to 911 tests were also performed internally with personal telephones of the other Wireless Service Providers. The results showed that T-Mobile's location of the Texter was similar to Sprint's "Coarse Location". The AT&T and Verizon tests revealed that the location of the texter sent to the PSAP was utilizing a Location Based Service (LBS) that plotted within 50 meters of the texter's location.
- Although there is a "Text to 911" plot on the MapFlex, the location of the plot is not reliable in some cases and pretty accurate in others. There are no indication on the Ali Screen to inform the Dispatcher on location accuracy. Text to 911 Dispatchers should use their skills to ascertain the exact location of the emergency response.

TEXT TO 911 Hawaii County PSAPs 2016						
Month	Received at Police	Received at Fire				
January	39	20				
February	26	8				
March	31	5				
April	22	2				
May	13	3				
June						
July						
August						
September						
October						
November						
December						
YTD	131	38				
Monthly Avg.	26.2	7.6				

NOTE:

- The January Text to 911 counts reflects only internal testing of Text to 911.
- 911 Text messages received at the Fire Department are transfers from the Police Department.

May 2016

Hawaii County E9-1-1 Status Report

May 1, 2016 – May 31, 2016

WIRELESS PSAP TESTING - MAY 2016

	HAWAII COUNTY - MAY 2016								
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:			
05/04/16	Verizon	1	2	Hawaii PSAP	Pass				
05/24/16	Verizon	3	8	Hawaii PSAP	Pass				
05/26/16	AT&T	1	6	Hawaii PSAP	Pass				

NOTES:

Hawaii County

• There were three (3) scheduled Wireless 911 Tests for the month of May 2016.

FOR YOUR INFORMATION

FYI	For Your Information
MLTS (Multi I	ine Telephone System)

"Most MLTS/PBX systems enable the digits 9-1-1 to be dialed and routed to a Public Safety Answering Point (PSAP). However, the vast majority of these systems do not provide granular location information with the 9-1-1 call to enable emergency responders to know the actual location of the emergency. In many instances a call from the 12th floor of a large office building may only provide the street address of the building. If the caller is unable to provide his or her location and no one else is available to provide assistance, such a lack of location information can prove fatal." (NENA: Multi-Line Telephone System & Private Branch Exchange) Technical Standards & Docs.

PRIMARY	MLTS/PBX 911 CALLS RECEIVED					
PSAPS*	MAY 2016	YEAR TO DATE 2016				
Oahu	3,594	17,315				
Hawaii	61	307				
Maui	89	493				
Molokai	0	1				
Kauai	16	114				
Total**	3,760	18,230				

^{*}PSAP totals does not include Military 911 calls.

^{**} Total numbers are a minimum estimated count. Presently, CENTRX & VoIP call volumes are combined with Multi & Single line systems and were not added to the total MLTS 911 calls.

May 1, 2016 – May 31, 2016

2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR - MAY 2016

HAWAII COUNTY	9-1-1 TRANSACTIONS								
	Total	MSAG	AG ALI Submitted			Open ALI Discrepancy Records			Customer
2016		MSAG (A)	TN CR (B)	ALI DR (C)	VoIP (D)	TNCR	ALI DR	VoIP DR	Addresses Affected
JANUARY	293	22	262	8	1	1,924	1	1	282
FEBRUARY	270	41	228	1	0	2,154	1	0	425
MARCH	236	27	207	1	1	2,259	1	0	302
APRIL	336	129	201	6	0	1,965	2	0	945
MAY	218	134	79	5	0	1,504	2	0	613
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL YTD	1,353	353	977	21	2				2,567
AVG PER MONTH	271	71	195	4	0				513

Definitions

- (A) Master Street Address Guide Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.
- (B) **T**elephone **N**umber **C**hange **R**equest Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 299 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.



May 1, 2016 – May 31, 2016

MSAG CURRENT MONTH NOTES:

A total of **218** MSAG transactions were processed in 9-1-1 Net during the month of May 2016. **134** requests were processed relating to the MSAG database changes 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 613 customer ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

79 Telephone Number Change Requests (TN CR) transactions were processed in 9-1-1 Net with valid MSAG addresses, as a result of the ESN 299 clean-up effort. ESN 299 TN CRs must be validated against HT records and approved by the end user Hawaiian Telcom customer before updating the ALI record. Five (5) ALI DRs were submitted as the result of 9-1-1 calls from residences in Captain Cook, Honokaa and Keaau. Hawaii County Fire submitted this request to Akimeka to update the customer information and the discrepancy was corrected in 9-1-1 Net.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- There are 1,504 Open TN CR Transactions as of May 31, 2016.
- Refer to chart in the next section "TNCR Current Status"

1,445 Open TN CR transactions are a direct result of the ESN 299 clean-up and are awaiting approval from Hawaiian Telcom, Inc. **59** Open TN CR transactions are a result of the Dispatchable Location project submitted in September. (Refer to the "Dispatchable Location" chart below) Akimeka continues to monitor and track the progress of the Referred records. Once a telephone number is submitted to Intrado for correction, it must be verified against HT records and/or approved by the customer. Intrado's internal process requires calling each telephone customer individually for approval to update an address in the 9-1-1 database.

• There are two (2) Open ALI-DRs as of May 31, 2016

One Open ALI-DR was submitted for correction in 9-1-1 Net in August 2014. This discrepancy has been referred to the telco since that time. Akimeka requested a status update from West Safety Services (Intrado) in February 2016 and is awaiting further information. The other Open ALI DR was submitted in April 2016 for a business in Hilo. The TN was ported to PLNI and West Safety Services (Intrado) has emailed PLNI with the address update. This ALI DR will remain in Referred status until PLNI confirms the update is complete.

Page **10** of **30**

Hawaii County May 2016



May 1, 2016 – May 31, 2016

TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS - MAY 2016

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 (Intrado) 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 WEST SAFETY SERVICES (INTRADO)	OPENED TNCRS REFERRED TO TELCO BY WEST SAFETY SERVICES (INTRADO)	TOTAL UNOPENED TNCR RECORDS			
HAWAII	1,504	123	153	1228			

STATUS

TOTAL TNCRs SUBMITTED - The total number of TNCR requests for modification that have been submitted in 9-1-1 NET.

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.

<u>REFERRED STATUS</u> - 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 (Intrado) 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.

Hawaii County May 2016



May 1, 2016 – May 31, 2016

DISPATCHABLE LOCATION - STATUS AS OF - MAY 2016 - "PENDING"

NARRATIVE:

During the August 2015 State of Hawaii 911 Board meeting, Akimeka provided a "State of Hawaii PSAPs Proposed ALI Compliancy with FCC 15-9" presentation. Based on the 9-1-1 Board's confirmation to add the "Dispatchable Location" information into the ALI database, Akimeka researched the format standards of each pertinent field, and tested the delivery of the data to the PSAP. After a few configuration adjustments (eliminating the TelCo comments field from appearing on the ALI Screen), Akimeka standardized an additional information data format to proceed with this project.

During the month of September 2015, Akimeka started a pilot project, entering additional location information to a verified MSAG address with multiple telephone numbers. Specifically the **Kings Shops at 690250 Waikoloa Beach Dr., Waikoloa**. The "Dispatchable Location" data is entered into the "Driving Directions" field in the 9-1-1 Net system, and will display on the Viper Power 911 ALI Screen in the "Exact" field should a 911 call be received from that telephone number. Seventy-five (75) Telephone Number Change Requests (TN CR) transactions were processed as a result of the Dispatchable Location Project. These transactions have not been updated in 9-1-1 Net pending research by Hawaiian Tel and West Safety Services (Intrado) for providing an additional 60 character field in the ALI data stream to accommodate Dispatchable Location information as an alternative to using the "Driving Directions" field. Until this field is created, no further Dispatchable Location transactions will be submitted. However, present observations indicate that previous transactions that were submitted in 2015 are currently being processed.

	Dispatchable Location								
Common Name Place	MSAG Address	2016	Number of TNCR* Transactions Submitted	Number of Transactions Processed**					
KINGS SHOPS	CARRY OVER	2015	75	0					
		Jan	0	0					
		Feb	0	0					
		Mar	0	0					
		Apr	0	2					
		May	0	14					
		Total	75	16					

Definition

Dispatchable Location is defined in the FCC 15-9 Docket as the verified or corroborated street address of the calling party plus additional information such as floor, suite, apartment or similar information that may be needed to adequately identify the location of the calling party.

TNCR* Telephone Number Change Request - Transactions submitted to Intrado to update/edit Dispatchable Location

in the Exact field on the ALI Screen.

Processed** may include inactive telephone numbers that were removed from the ALI Database.

May 1, 2016 – May 31, 2016

3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – MAY 2016

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.

HAWAII COUNTY								
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks					
	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)							
	5/27/2016	(Elsec)	Spatially corrected five (5) address points in Kailua Kona.					
	5/26/2016		Spatially corrected ninety-eight (98) address points in Kurtistown.					
	5/25/2016		Spatially corrected forty (40) address points in Kurtistown.					
	5/25/2016		Spatially corrected twenty-five (25) address points in Mountain View.					
	3/23/2010	05/24/16	opalially corrected twenty-live (23) address points in wountain view.					
	5/24/2016	03/24/10	Spatially corrected thirty-five (35) address points in Mountain View.					
	5/24/2016		Spatially corrected five (5) address points in Paauilo.					
	5/23/2016		Spatially corrected five (5) address points in Hilo.					
	5/23/2016		Corrected location name to one (1) address point (929 Ululani St) in Hilo.					
	5/23/2016		Completed monthly update on address points.					
	5/20/2016		Added four (4) address points in Captain Cook.					
	5/20/2016		Added one (1) address point (553448 Akoni Pule Hwy) in Hawi.					
	5/20/2016		Added ten (10) address points in Hilo.					
	5/20/2016		Added one (1) address point (461773 Punono Rd) in Honokaa.					
	5/20/2016		Added twenty (20) address points in Kailua Kona.					
	5/20/2016		Added eight (8) address points in Kamuela.					
	5/20/2016		Added one (1) address point (542250 Kynnersley Rd) in Kapaau.					
	5/20/2016		Added seven (7) address points in Keaau.					
Address Points	5/20/2016		Added one (1) address point (791090 Hokukano Rd) in Kealakekua.					
	5/20/2016		Added six (6) address points in Kurtistown.					
	5/20/2016		Added thirteen (13) address points in Mountain View.					
	5/20/2016		Added six (6) address points in Naalehu.					
	5/20/2016		Added eleven (11) address points in Ocean View.					
	5/20/2016		Added six (6) address points in Pahoa.					
	5/20/2016		Added one (1) address point (310550 Old Mamalahoa Hwy) in Papaaloa.					
	5/20/2016		Added two (2) address points (280602 Opiapio Rd and 280281 Ua Pl) in Pepeekeo.					
	5/20/2016		Added six (6) address points in Volcano.					
	5/19/2016		Corrected address to one (1) address (750 Mohouli St) in Hilo.					
	5/19/2016		Corrected address to three (3) addresses (182264, 182269 and 182277 Hillani Rd) in Volcano.					
	5/18/2016		Corrected one (1) address (645163 Kinohou St) in Kamuela.					
	5/18/2016		Corrected one (1) address (150893 Lemiwai Rd) in Keaau.					
	5/18/2016		Added one (1) address (872531 Mamalahoa Hwy) in Captain Cook.					
	5/13/2016		Spatially corrected eleven (11) address points in Mountain View.					
	5/12/2016		Aliased twenty-two (22) address points in Hawi.					

Page 13 of 30

May 1, 2016 – May 31, 2016

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.

HAWAII COUNTY						
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks			
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE						
		(Listed	d Alphabetically)			
	5/12/2016		Aliased ninety-four (94) address points in Honokaa.			
	5/12/2016		Aliased ninety-seven (97) address points in HVNP.			
	5/12/2016		Aliased one (1) address point (671113 S Alulike Rd) in Kamuela.			
	5/12/2016		Aliased nine (9) address points in Keaau.			
	5/12/2016		Aliased one hundred seventy-three (173) address points in Pahoa.			
	5/12/2016		Aliased twenty-four (24) address points in Waikoloa.			
	5/11/2016		Added two (2) address points (239 and 499 Mauna Loa Access Rd) in Hilo.			
	5/11/2016		Spatially corrected five (5) address points in Kailua Kona.			
Address Points	5/11/2016		Spatially corrected one hundred sixty-seven (167) address points in Mountain View.			
		05/10/16				
	5/9/2016		Added twenty-five (25) address points in Hilo.			
	5/9/2016		Spatially corrected six (6) address points in Hilo.			
	5/6/2016		Spatially corrected thirty-four (34) address points in Kamuela.			
	5/6/2016		Corrected address to nine (9) address points in Kamuela.			
	5/6/2016		Spatially corrected thirty-eight (38) address points in Mountain View.			
	5/5/2016		Added one (1) address point (734351 Pukiawe St) in Kailua Kona.			
	5/5/2016		Spatially corrected one hundred fifty (150) address points in Mountain View.			
Airports						
Bridges						
Building Footprints						
Bus Stops						
Churches						
Coastal Names						
Coastline						
Common Places						
Correctional Facilities						
Emergency Callboxes						
Emergency Operation Centers						
Emergency Shelters						
ESZ/ESN						
Fire Beats						
Fire Districts						
Fire Response Areas						

May 1, 2016 – May 31, 2016

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.

HAWAII COUNTY							
Type of Layer	Akimeka GIS Server Date Created/	Date GIS Delivered	Other/Remarks				
	Edits Performed CRITICAL 9-1-1		TY LAYERS FOR DISPATCH & RESPONSE				
	(Listed Alphabetically)						
Fire Stations							
Food & Beverage							
Gas Stations							
Gate Codes							
Government Buildings							
Harbors							
Helipads							
Hiking Trails							
Hospitals							
Hydrants							
Hyrdology Layers							
Incident Response Areas							
Lodging							
Major Roads							
Medic Beats							
Medic Districts							
Medic Response Areas							
Medic Stations							
Medical Facilities							
Milepost Markers							
MSAG Communities							
Net Junctions							
Ocean Rescue Boundaries							
Ocean Safety							
Parcels							
Parks							
Parks Polygon							
78		05/24/16					
	5/24/2016		Added one (1) point of interest (Donnas Cookies) in Paauilo.				
	5/23/2016		Spatially corrected fifty-three (53) points of interest in Hilo.				
Points of Interest	5/23/2016		Corrected address to one (1) points of interest (Pomaikai Senior Center) in Hilo.				
		05/10/16					
	5/5/2016		Added one (1) point of interest (Greeters of Hawaii) in Kailua Kona.				
	5/4/2016		Spatially corrected one (1) point of interest (Naalehu Volunteer Fire Station) in				
	5/4/2016		Naalehu.				

May 1, 2016 – May 31, 2016

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.

HAWAII COUNTY							
Type of Layer	Akimeka GIS Server Date GIS Date GIS Delivered Edits Performed		Other/Remarks				
	CRITICAL 9-1-1	PUBLIC SAFET	TY LAYERS FOR DISPATCH & RESPONSE				
	(Listed Alphabetically)						
	5/31/2016		Corrected boundary to two (2) police beats (636 and 637).				
Police Beats		05/10/16					
	5/4/2016		Corrected boundary to two (2) police beats (139 and 141).				
Police Districts							
	5/31/2016		Corrected boundary to two (2) police response areas (636 and 637).				
Police Response Areas		05/10/16					
	5/4/2016		Corrected boundary to two (2) police response areas (139 and 141).				
Police Stations							
Post Offices							
Schools							
	5/31/2016		Spatially corrected twenty-four (24) street segments in Kailua Kona.				
	5/31/2016		Aliased thirty-four (34) street segments in Mountain View.				
	5/27/2016		Spatially corrected thirty-three (33) street segments in Kailua Kona.				
	5/27/2016		Corrected street name to one (1) street segment of Kakina Ln in Kailua Kona.				
	5/27/2016		Deleted one (1) segment of Kakina Rd in Kailua Kona.				
	5/26/2016		Spatially corrected forty-one (41) street segments in Kailua Kona.				
		05/24/16					
	5/24/2016		Added seven (7) streets segments in Waikoloa.				
	5/24/2016		Split one (1) segment of Waikoloa Beach Dr in Waikoloa.				
	5/23/2016		Completed monthly update on street centerlines.				
	5/20/2016		Corrected range to one (1) segment of Keahi Kai PI in Captain Cook.				
Street Centerlines	5/19/2016		Added one (1) street segment (Kahala PI) in Hilo.				
	5/19/2016		Split one (1) segment of Kulana St in Hilo.				
	5/19/2016		Corrected name to one (1) street segment (Hiilani Rd) in Volcano.				
	5/12/2016		Corrected alias to three (3) segments of Kaauhuhu Rd in Hawi.				
	5/12/2016		Corrected alias to fifteen (15) street segments in Honokaa.				
	5/12/2016		Corrected alias to three (3) segments of Pilikai Rd in Keaau.				
	5/12/2016		Corrected alias to nineteen (19) street segments in Pahoa.				
	5/11/2016		Corrected range to five (5) street segments in Hilo.				
		05/10/16					
	5/10/2016		Split two (2) street segments of Queen Kaahumanu Hwy in Waikoloa.				
	5/10/2016		Added twenty-two (22) street segments in Kamuela.				
	5/10/2016		Corrected one-way to one (1) segment of Hapuna Beach Rd in Kamuela.				
	5/10/2016		Split seven (7) street segments in Kamuela.				

May 1, 2016 – May 31, 2016

MAPPING LAYERS UPDATED (PART V)

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.

HAWAII COUNTY							
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks				
	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE						
		(Liste	d Alphabetically)				
	5/4/2016		Added three (3) street segments of Kamehameha Cir in Hilo.				
	5/4/2016		Corrected one-way to seven (7) street segments in Hilo.				
	5/4/2016		Corrected range to three (3) street segments of Kamehameha Ave in Hilo.				
	5/4/2016		Flipped two (2) street segments of Railroad Ave in Hilo.				
	5/4/2016		Spatially corrected eighteen (18) street segments in Hilo.				
	5/4/2016		Split four (4) street segments in Hilo.				
Street Centerlines	5/4/2016		Deleted two (2) street segments (Kamehameha Ave and Railroad Ave) in Hilo.				
	5/4/2016		Corrected range to two (2) street segments of Anuhea Circle Dr in Volcano.				
	5/4/2016		Spatially corrected six (6) street segments in Volcano.				
	5/4/2016		Deleted one (1) segment of Anuhea Circle Dr in Volcano.				
	5/3/2016		Added twelve (12) streets in Kamuela.				
	5/3/2016		Spatially corrected six (6) streets in Kamuela.				
Subdivisions							
Tow Jurisdictions							
Tsunami Evacuation Zones							
Tsunami Heights							
Waste Water Plants							
	5/26/2016		Per ATT CRS				
WSP Cell Sectors		05/24/16					
	5/11/2016		Per VZW CRS				
		05/10/16					
	5/26/2016		Per ATT CRS				
WSP Cell Towers		05/24/16					
war cen rowers	5/11/2016		Per VZW CRS				
		05/10/16					

May 1, 2016 – May 31, 2016

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
5/24/2016	MapFlex deliverable which included the following updated layers: Address Points, Cell Sectors, Cell Towers, Common Places and Street Centerlines.
5/10/2016	MapFlex deliverable which included the following updated layers: Address Points, Cell Sectors, Cell Towers, Common Places, Street Centerlines and County Recreation.

ADDRESS POINTS AND STREET CENTERLINES UPDATE COMPARISON

On a routine basis, upon receipt of Hawai'i County Planning Department's Address Points and Street Centerlines layer updates, Akimeka compares and incorporates any of the County's additions, changes, and deletions into the Akimeka Address Points and Street Centerlines layers that appear necessary for the dispatch and response of 911 personnel.

The Address Points and Street Centerlines layer comparative analysis was completed on the updates received from the Hawai'i County Planning Department on **May 23, 2016**. Results are as follows:

HAWAII COUNTY	Address Points Layer	Street Centerlines Layer
New Addresses Added	104	
Addresses Removed	0	
Address Street Name Changes	4	
Address Street Number Changes	1	
New Street Segments Added		1
Street Segments Removed		0
Street Segment Range Changes		0
Street Segment Name Changes		1

NOTE:

Some Address Points have multiple updates that are required, including Street Name and Street Number. These updates are counted as separate actions since the changes are required in order to make the GIS layers "9-1-1 capable" for CAD system recommendations affecting public safety dispatch and response operations.



May 1, 2016 – May 31, 2016

POLICE BEAT REVIEW

Beginning in late 2015 and continuing in January 2016, Akimeka has been conducting a Police Beats review process as part of an annual update and in addition, preparation for Hawaii County's CAD system deployment. During this time, the Police Beats are also reviewed with the written descriptions of the Hawaii Police Beat Boundaries, whereby corrections are made to the Police Beat GIS layer where applicable in an effort to synchronize the GIS layer with the written descriptions and provide the 911 centers in Hawaii with a more accurately defined boundary layer which align with operational jurisdictions.

- To better service the public safety needs of Hawaii County, Akimeka compared the written descriptions of the Hawaii Police
 Beats as recorded in Document Number GO 204 with an effective date of June 27, 2011, and made corrections to the Police
 Beats GIS layer where needed. In addition, Akimeka has been documenting any recommendations for document description
 updates.
 - a. Akimeka reviewed the written descriptions for the Hawaii Police Beats and cross referenced it to the Police Beats GIS layer. The boundaries to all seventy-six police beats as well as the area falling within the jurisdiction of the Hawaii Volcanoes National Park were edited for greater accuracy.
 - b. Akimeka has documented all potential discrepancies between the written descriptions and GIS layer for a thorough review upon completion. Akimeka has also produced several maps to better illustrate some of the larger discrepancies.
 - c. Upon completion of the GIS editing procedures, Akimeka will participate in a Police Beat review process with the Hawaii Police Department to further refine the boundaries to the Police Beats GIS layer and the written descriptions for those boundaries. This process will finalize the synchronization between the GIS layer and the written descriptions; provide additional precision and accuracy to both the GIS layer and written descriptions; and eliminate all discrepancies so that confusion and/or misinterpretation of those boundaries do not hinder public safety needs.
 - d. During the month of February 2016, Akimeka corrected the boundaries to the GIS layers that are associated with the Police Beats so that proper alignment would occur between the associated layers. This included correcting boundaries to six ESNs and three Police Districts. Those corrected layers were delivered to MapFlex and made available to the dispatchers on February 17th.
 - e. During the month of March 2016, Akimeka corrected the boundaries to the Police Response Areas so they would be aligned properly with the Police Beats and be topologically error free. This included correcting the boundaries to all seventy-six police response areas as well as the area falling within the jurisdiction of the Hawaii Volcanoes National Park.
 - f. During the month of May 2016, Akimeka is awaiting the final review process of the Police Beat layer with the Hawaii Police Department. Besides the Police Beat layer, the review process with the Hawaii Police Department will also likely include a review process of the Police Districts layer as well as the Police Response Areas layer.



May 1, 2016 – May 31, 2016

CAD SYSTEM DEPLOYMENT

During the 2015 year, the Hawaii County Police Department has conducted thorough research and has decided to implement a new CAD (Computer Aided Dispatch) system. Through their selection process, they have chosen the Spillman Technologies CAD system to best fit their operational needs. Throughout the coming months there will be much coordination between the Hawaii Police Department, Hawaii IT Department, Akimeka, and Spillman Technologies to deploy the Spillman Technologies CAD system with absolute success.

- 1. The Hawaii Police Department, Akimeka, and Spillman Technologies have begun introductory coordination and information sharing to ensure a successful deployment of the new CAD system, which will improve dispatch efficiency.
 - a. On January 15, 2016, Spillman Technologies held a webinar and discussion on their Geobase process which HPD, Spillman Technologies, and Akimeka were in attendance. The discussion was high-level and pertaining to the GIS database and how it is integrated within the Spillman Technologies CAD architecture.
 - b. In February 2016, Spillman Technologies was on-site at the Hawaii Police Department to host an official kick-off meeting and technical discussion which Akimeka was also in attendance. During the meeting Akimeka presented the entire GIS dataset via webinar. Spillman Technologies was impressed with the quality of the GIS data and is looking forward to the project.
 - c. In May 2016, the final NDA were completed with Akimeka, Spillman Technologies, and the Hawaii Police Department.
 - d. On May 31, 2016, Akimeka's GIS Manager and two representatives from the Spillman Technologies team met to discuss the timeline, requirements, and where they can work together to make this a successful project and on schedule.
 - i. Spillman Technologies is currently in the process of getting the server(s) packaged/shipped on site. Once these are in place, more timeline milestones will be established with preparing the data for configuration on the server, etc.

FIRE RESPONSE AREA REVIEW

Beginning in late February 2016 and continuing in March 2016, Akimeka reviewed the Hawaii County Fire Response Areas as part of an annual update as well as for preparation for the CAD system deployment. The Fire Response Areas layer contains information not contained within the Fire Beats and Fire Districts in regards to station run order as well as a higher level of boundary divisions, making it a highly robust layer that will play an integral role in the CAD system and routing of first responders.

- 1. To ensure that Hawaii County's new CAD system operates with full potential and with the most robust data possible, Akimeka reviewed the Fire Response Areas layer and made all necessary corrections to make it as accurate as possible.
 - a. During February and March 2016, Akimeka reviewed the Hawaii County Fire Response Areas. The boundaries to all fifty-two fire response areas were edited for greater accuracy to ensure that a high level of efficiency occurs in regards to the proper personnel being called upon as first responders for the various location and asset based situations.
 - b. During the month of March 2016, Akimeka corrected the boundaries to the GIS layers that are associated with the Fire Response Areas so that proper alignment would occur between the associated layers. This process also included correcting the street segments that were affected by the boundary updates so that potential confusion and discrepancies would be nonexistent.
 - c. During the month of April 2016, no activity took place with the Fire Response Areas layer.

Page 20 of 30



May 1, 2016 – May 31, 2016

d. During the month of May 2016, no activity took place with the Fire Response Areas layer.

MILE MARKER PROJECT

In March 2016, Hawaii County Fire Department requested Akimeka to furnish mile markers for the new section of Daniel K Inouye Highway (Route 200). Akimeka proceeded by performing the research necessary for obtaining precise coordinates of all new mile markers.

- 1. On March 16, 2016, Hawaii County Fire Department requested Akimeka to furnish mile markers for the new section of Daniel K Inouye Highway (Route 200), opened to the public since September 2013, so that mile markers would be both visible and query able to the dispatchers for both the new and old sections of the Highway.
 - a. Akimeka immediately began researching for any available updates to the mile markers and it was discovered that there was no current data available via Hawaii Department of Transportation's website or any other reputable organization's website.
 - b. On March 21, 2016, Akimeka contacted Hawaii Department of Transportation via email to inquire if there were any new mile markers in place for the new stretch of Route 200, and if so if we could acquire the necessary data from them to include in our current mile marker spatial dataset that we provide to the PSAPs. We also inquired if the mile markers for the old section of Route 200 were still in place, and if so if the old stretch of Route 200 had a different route number now, so that confusion would not arise between the mile markers of the new and old routes. In order to clarify and expedite our request for information, Akimeka created a map illustrating the new and old sections of Route 200 for Hawaii Department of Transportation's perusal.
 - c. As of March 28, 2016, Akimeka still had not heard back from Hawaii Department of Transportation regarding the request for updated mile marker information, so we proceeded to phone the organization to check on the status of our request. They informed us that they are processing the request and will get back to us with the information as soon as possible.
 - d. On April 21, 2016, Akimeka received a map from Hawaii Department of Transportation, detailing the location of the ten mile markers for the new section of Route 200. The new mile markers were then digitized into the necessary file format and incorporated into the Milepost Markers layer. This updated layer was delivered to MapFlex and made available to the dispatchers on April 26th.
 - e. On April 28, 2016, Akimeka received a request from Hawaii County Fire Department for the mile markers to be query able to the dispatchers in the same manner as the common places.
 - f. On April 28, 2016, Akimeka promptly proceeded with this request by first modifying the naming of fifty-seven of the mile markers in order to differentiate the mile markers of the new section of Route 200 from the mile markers of the old section of Route 200. Then forty-seven of the mile markers were assigned aliases to help ensure they would be located by dispatchers when queried since the name of those particular mile markers might be confused with their historical name. The five hundred nineteen mile markers were then incorporated into the Common Places layer to ensure that dispatchers would be able to correctly and efficiently query them from the spatial dataset.
 - g. On April 29, 2016, Akimeka performed an additional MapFlex deliverable, which included the Common Places and the Milepost Markers layers, thereby making the mile markers query able to the dispatchers. Detailed instructions were also given to the PSAPs on how to query the mile markers correctly so that time would not be wasted trying to figure it out during an emergency situation.

Page **21** of **30**

May 2016

Hawaii County E9-1-1 Status Report

May 1, 2016 – May 31, 2016

- h. On Friday, May 6, 2016, Akimeka was notified by Hawaii County Fire Department that their MapFlex's Milepost Marker search now had a dropdown selection indicating multiple options.
- i. On Monday, May 9, 2016, Akimeka contacted West (formerly Intrado) to verify if this was occurring due to there being more than one GIS layer (Milepost Markers and Common Places) in MapFlex configured for the search.
- j. On May 26, 2016, Akimeka received confirmation from West that multiple options were in fact being produced while searching because Milepost Markers and Common Places are both configured for querying. Akimeka immediately proceeded by recommending to the opening a trouble ticket with Hawaiian Tel to correct this issue.

WIRELESS ANNUAL AUDIT

During the month of February 2016, the wireless annual audit for Verizon was coordinated and completed as indicated in the Wireless Audit Chart. However during the audit process, it was identified that changes which had been sent through the CRS process for all WSPs were possibly not making their way back to the wireless FMCC database (responsible for information provided via the ALI).

- 1. On February 29, 2016, after completing the review of the Annual Audit for Verizon wireless Akimeka contacted West to discuss the reason why the annual audit synchronization has degraded in the match accuracy.
 - a. Note The CRS process performed throughout the year for all WSPs deals with routine maintenance performed on the sites/sectors. The Annual Audit is intended to identify any possible gaps in that process and seeks reconciliation in an effort to re-synchronize the databases. If there are no missed CRSs throughout the year and the database match percentage decreases, then there are apparent issues.
- 2. On March 15, 2016, Akimeka and West held a conference call to discuss the matter. During the conversation it was identified that the changes sent back from Akimeka to West after accuracy validation, are processed into the FMCC. The issue that Akimeka is seeing when the Annual Audit is provided is resulting from a script West put in place in 2013 to output the CRSs into the approved format at that time.
 - a. The issue is that the format has changed over time due to new technology and more hexadecimal numbering of the wireless sectors. In order to accommodate those changes, Akimeka has developed a translation into an applicable format which the PSAPs are able to use. The format that West is providing each Annual Audit and CRS is overriding the changes within the FMCC, therefore give the appearance of not being synchronized in that process but are. This helps to explain why the wireless testing results are accurate, and the PSAPs are not experiencing a large number of discrepancies in the Mapping Systems when matched with the ALI.
- 3. Akimeka followed up with West on March 30, 2016, to see if West has re-scripted the format.
 - a. West replied that unfortunately it will require system development at West. Melissa Norton of West did mention that the particular system that needs to be changed is currently backlogged with a few large projects. She opened a Product Development Request at West but there is no ETA on the enhancement. In order to speed up the request, she is working to bundle the request with several other State's requests.
- 4. Akimeka will continue to follow up on the process to ensure the wireless databases are maintained accurately. With the big push by the WSPs for more LTE sites, which are having the impact on the hexadecimal numbering, Akimeka is hopeful that West can resolve this issue. The additional work involved to re-validate information takes a significant effort and allows for discrepancy. The Annual Audit is supposed to be a raw comparison to the condition of the data in both the FMCC and the GIS

Hawaii County

May 1, 2016 – May 31, 2016

- database provided in the Mapping Systems. Without both in its raw format, the comparison becomes unclear as to the real condition of the FMCC database.
- 5. Throughout the month of April 2016, Akimeka had been provided several TVWs by the WSPs for testing and most of the information was good for testing but there was an unusually high number of records that were either missing or were incorrect. Virtually all TVWs sent to Akimeka had some variety of discrepancy in them. This was only applicable to Verizon at the time and since the Annual Audit with Verizon had been completed, bringing the databases to 100% match rate, a reason for the mismatch in TVW information was perplexing. It certainly required more investigation into what was occurring.
- 6. On April 21, 2016, Akimeka was notified of yet another set of TVWs with issues and the WSP and West investigated their end and said everything was matching. Because the Annual Audit was completed, matching West and Akimeka databases, but yet the TVWs produced from the West database were not matching, something was highly unusual.
 - a. Later the same day, Akimeka provided an example of the discrepancy back to West detailing one of the records along a timeline. Information provided in the TVW matched with the record from 2015. Since that time, there were several updates, including the Annual Audit. This indicated that the TVWs being generated by West were not accurate and it also was indicating the Annual Audit sent back to West was not be uploaded. This is a major issue.
- 7. To confirm Akimeka's suspicion that the Annual Audit updates were not being uploaded by West into the FMCC, Akimeka followed up with implementation specialist at West, who the Audit was coordinated with.
 - a. West sent a reply on April 25, 2016, that the audit was not fully completed at West and they were in their final stages before sending changes to the database and on to Verizon. From West "there were a lot of changes that came from the audit which is where you may be seeing the discrepancies. Once Verizon has called in the hot cuts (changes), the data should match the audit sheet you sent".
 - b. This was confirmation that the audit was still not being processed fully by West after 2 months and that the issues with mismatched information in the TVWs were as a result of this.
- 8. On May 23, 2016, Akimeka, West, and Verizon held a conference call to discuss the issue in more detail.
 - a. West provided a brief that indicated the Verizon Annual Audit was complete and that the West FMCC database and the Verizon TVWs match.
 - b. Akimeka used several examples of changes which have occurred more recently (all during 2016 year), which were missing or outdated in both the West and Verizon databases.
 - c. West agreed that they must be behind in processing the changes Akimeka sends to them via the CRSs and the Annual Audit.
 - d. Akimeka brought up several concerns regarding the length of time it is taking West to process the changes and the inability to monitor the changes that occur with every site and sector. Akimeka mentioned that in all of the examples provided where the TVWs were incorrect, Akimeka has been able to pull every change which has occurred to that record. Akimeka maintains an extensive archive of all additions, changes, and deletes dating back in many cases more than 5 years. Akimeka also mentioned that we perform updates based on a change triggered by the WSPs. There is no other form of change that occurs outside of the mechanisms communicated to Akimeka by both West and the WSPs via the CRS or Annual Audits.
 - e. It was agreed that West would follow up with their one (1) resource assigned to the annual audit and see why this has taken almost three months to complete.
 - i. Note the review and update process completed by Akimeka took six (6) business days to complete.
- 9. There were no further follow up discussions or reports by West throughout the remainder of May 2016

REQUEST FOR 9-1-1 JURISDICTIONAL BOUNDARIES



May 1, 2016 – May 31, 2016

On March 17, 2016, West had requested information for each of the PSAPs in the State of Hawaii, with the exception of the Honolulu Police Department and Regional Dispatch Center. Akimeka has followed up with West to see if the Honolulu Police Department PSAP was supposed to be included in this request.

- 1. On March 17, 2016, West requested that each PSAP fill out an attached questionnaire and to provide the PSAP Jurisdictional Boundaries (to include VoIP, Wireless, Text, and Alarms).
- 2. Akimeka prepared the boundaries of each of the PSAP Jurisdictional Boundaries which included all requested attribution. Given the geography of the Hawaiian Islands, and the operational responses of each PSAP which includes ocean responses, Akimeka included a buffer for each of the PSAP Boundaries that extend into the ocean. This reflects the true nature of the PSAP Jurisdictional Boundary response area and also covers the distance over water which can account for possible Lat/Longs provided during a Text-to-911 call to the PSAP. Since the system is intended to use the location information to determine routing, inclusion of the water area into the PSAP polygons was a more accurate approach.
- 3. On March 23, 2016, the Akimeka GIS Manager notified West that this information was ready and requested a secure method of transferring the data. Throughout the remainder of March 2016, there was no reply from West.
- 4. On April 19, 2016, West followed back up with the Akimeka GIS Manager. The West employee was unfamiliar with using an ftp site and was going to touch base with her supervisors to find a more secure manner of transferring the data. Throughout the remainder of April 2016, Akimeka did not hear back.
- 5. On May 6, 2016, West sent Akimeka a notification that their ftp site was ready for data to be sent now.
- 6. On May 9, 2016, Akimeka uploaded the PSAP Jurisdictional Boundary data onto the West ftp site and requested confirmation once they receive the data.
- 7. On May 19 2016, Akimeka received a phone call from West notifying that the data was accepted.

MAPFLEX SYSTEM

During the month of May 2016, the MapFlex system performed without any issues and deliverables continued on schedule.

Considering that the MapFlex initiative being provided by Hawaiian Telecom and sub-contractor, Intrado, 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 year.

During the month of May 2016, there were continued GIS deliverables into the MapFlex system for Hawaii County, Maui County, Kauai County, and Honolulu Civilian PSAPs. The MapFlex deployment has been concluded and is now considered a running system capable of receiving updates regularly.

- 1. Akimeka delivered GIS data to the MapFlex system on the following dates in May 2016
 - a. **Hawaii County** May 10th and May 24th
 - b. **Maui County** May 11th and May 25th
 - c. **Kauai County** May 12th and May 26th
 - d. Honolulu May 13th and May 27th

4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS - MAY 2016

May 1, 2016 – May 31, 2016

ſ	#	Date	Ticket #	Description	PSAP	Urgency	Comments
Ī	1	08/19/14	716	Updated Address	FIRE	Normal	TN has been referred to telco via email by West Safety Services (Intrado). RMS
	2	04/28/16	844	Updated Address	FIRE	Normal	TN has been referred to telco via email by West Safety Services (Intrado). RMS

Note* There are two (2) opened service request pending for May 2016.

SERVICE REQUEST YEAR-TO-DATE (YTD) SUMMARY - 2016

H	HAWAII COUNTY					MSAG SERVICE REQUEST CATEGORIES				
2016	TOTAL		Onen	WIRE	WIRELINE		WIRELESS		VolP	
2016	Created	Closed	Open	Created	Closed	Created	Closed	Created	Closed	
2015 Carryover*			3							
January	9	10	2	8	8	0	1*	1	1	
February	1	2	1	1	1	0	0	0	1*	
March	2	2	1	1	1	0	0	1	1	
April	6	5	2	6	5	0	0	0	0	
May	5	5	2	5	5	0	0	0	0	
June										
July										
August										
September										
October										
November										
December	·									
TOTAL	23	24	2	21	20	0	1	2	3	

	* The 2015 Carryover row indicated the number of Service Requests that were opened in 2015 and brought forward into
Note:	2016 in an effort to track the service request until completion.
	Detailed information on service tickets are available upon request.

	Category	Description
	Wireline	Telephone Number (ALI) Discrepancies from land line phones that have been submitted to West Safety Services (Intrado) via 9-1-1 Net for correction.
<u>Definitions:</u>	Wireless	Telephone Number (ALI) Discrepancies from phones that were land lines at one time, and were ported out to a wireless carrier. However, the phone number was never removed from the MSAG database.
	VoIP	Telephone Number (ALI) Discrepancies from VoIP phones that have been submitted to Time Warner Cable (TWCBL) for correction

5. E9-1-1 DATABASE SYNCHRONIZATION



May 1, 2016 – May 31, 2016

(<u>Reference:</u> 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 quarterly database synchronization audit for Hawaii County in May 2016.

The database synchronization effort included comparing Hawaii County's 9-1-1 MSAG against its GIS Street Centerline data. A total number of **4,474** 9-1-1 MSAG records were reviewed in the audit and analyzed. Results of the database synchronization audit completed on May 1, 2016 for Hawaii County 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 it ongoing maintenance process. Results of the database synchronization audit will be included and reported in the Monthly Status Report (MSR) accordingly.



May 1, 2016 – May 31, 2016

9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS		As of Augu	ust 1, 2015	As of Noven	nber 1, 2015	As of Febru	ary 1, 2016	As of May 1, 2016	
		9-1-1 MSAG Dated 08-01-15		9-1-1 MSAG Dated 11-01-15		9-1-1 MSAG Dated 02-01-16		9-1-1 MSAG Dated 05-01-16	
		# of Records	%	# of Records	%	# of Records	%	# of Records	%
Total 9-1-1 MSAG Records Reviewed		4,436		4,448		4,453		4,474	
Less: 9-1-1 MSAG Exception Records	(1)	44	1.0%	50	1.1%	53	1.2%	48	1.1%
Net 9-1-1 MSAG Records Eligible for Comparison		4,392		4,398		4,400		4,426	
Total 9-1-1 MSAG Records Match (9-1-1 MSAG GIS Match No Corrections Required)		4,390	100.0%	4,382	99.6%	4,398	100.0%	4,426	100.0%
9-1-1 MSAG GIS No Match Minor Correction Required	(2)	2	0.0%	13	0.3%	2	0.0%	0	0.0%
9-1-1 MSAG Record With No GIS Record	(3)	0	0.0%	3	0.1%	0	0.0%	0	0.0%
Total 9-1-1 MSAG Records No Match		2	0.0%	16	0.4%	2	0.0%	0	0.0%

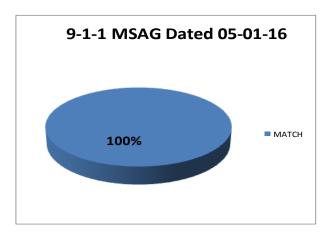
AUDIT SUMMARY RESULTS - CONTINUED

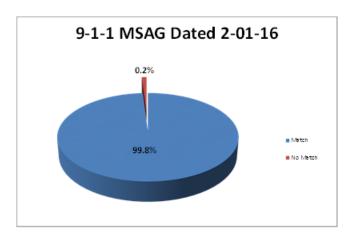
Notes:

- (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.

AUDIT SUMMARY RESULTS COMPARISION – MAY 1, 2016 VS FEBRUARY 1, 2016

May 1, 2016 – May 31, 2016





NOTE:

Hawaii County's level of accuracy or 9-1-1 Match percentage improved from 99.8% as of February 1, 2016 to 100% as of May 1, 2016 NENA Recommended Match Rate = 98%

AUDIT SUMMARY RESULTS

COMPARISON NOTES:

- There continues to be a tremendous work effort to synchronize the MSAG and GIS data. Akimeka continues to work closely with County Planning to address problem areas. Hawai'i County has worked very hard to assign addresses and name and range street centerlines which have helped facilitate Akimeka's synchronization efforts.
- * "MSAG MSAG with Missing GIS Records" remained consistent at 100% from February 2016 to May 2016 respectively.
- * "MSAG GIS Minor Corrections" decreased 100% (3 to 0) from February 2016 to May 2016. A combination of corrections to the GIS and MSAG databases were processed in order to meet NG9-1-1 requirements.
- "GIS Record with No Matching MSAG Record" decreased 100% (3 to 0) from February 2016 to May 2016. This includes GIS records that have no MSAG records, and/or GIS records that do not match the MSAG record exactly.
- "GIS Record with No MSAG Record" decreased 100% (3 to 0) from February 2016 to May 2016 respectively. This was primarily the result of edits made to the GIS Street Centerlines layer in order to meet new NG9-1-1 requirements.
- Ongoing maintenance is critical to ensure the database synchronized level of address accuracy is maintained each time an MSAG or GIS record is "touched".

INVALID MSAG STREETS AND ADDRESS RANGES - ESN X99 RECORDS



May 1, 2016 – May 31, 2016

At the request of the County of Hawai'i Chief of Police, Hawaiian Telcom, Inc. (HTI) provided Hawai'i County 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. Results of the data provided are as follows:

	Invalid MSAG Records									
	9-1-1 MSAG D	ated 02-01-16	9-1-1 MSAG Dated 05-01-16							
HAWAII	Number of Records	% of Total Inlavid MSAG Records	Number of Records	% of Total Inlavid MSAG Records						
ESN 299	724	16.5%	683	15.4%						

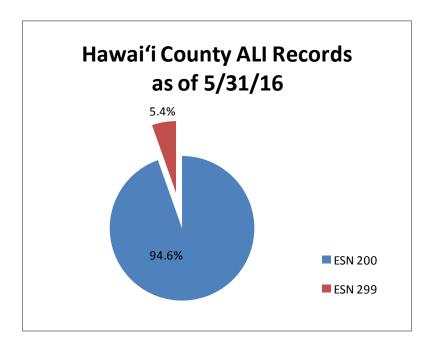
These invalid MSAG records represent **15.4%** of the Total MSAG records for Hawai'i County. The individual ALI records associated with these records are provided below.

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 299 MSAG records as a separate project and add-on to the Database Synchronization quarterly report.

AUTOMATIC LOCATION IDENTIFICATION (ALI) DISCREPANCY REPORT

May 1, 2016 – May 31, 2016

As part of Akimeka's ongoing database synchronization efforts, Akimeka reviewed and summarized the ALI discrepancy reports by community for Hawai'i County. As of May 31, 2016, **3,856** ESN 299 records, representing **5.4%** of Hawai'i County's total ALI records, require research and corrective action, if needed. These ALI discrepancy reports may result in a No Record Found (NRF) condition during a 9-1-1 call.

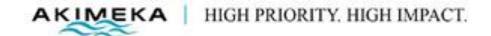


Hawaii County May 2016

Page 30 of 30

May 1, 2016 - May 31, 2016





May 1, 2016 - May 31, 2016

TABLE OF CONTENTS

1.	PSAP Operations	4
	9-1-1 Call Volume – May 2016	4
	9-1-1 Call Volume – Calendar Year 2016	4
	Psap operation notes:	4
	Text to 911 – current month – May 2016	5
	Note:	5
	Wireless PSAP TESTING – May 2016	6
	Notes:	6
	For your information	6
2.	MSAG (master street address guide)	7
	Msag transactions Current Month/year – May 2016	7
	Msag current month notes:	8
	Telephone record (Ali) Transactions current month notes:	8
	Open telephone record (ali) discrepancy Status:	8
	TNCR (Telephone Number Change Request) Current Status – May, 2016	9
	NOTE:	9
	DISPATCHABLE LOCATION – Status as of – May 2016 - Pending	10
	Narrative:	10
3.	Geographic Information System (GIS) – May 2016	11
	Mapping Layers Updated (Part I)	11
	Mapping Layers Updated (Part II)	12
	Mapping Layers Updated (Part III)	13



May 1, 2016 - May 31, 2016

Mapping Layers Updated (Part IV)	14
Note:	14
Geographic Information System (GIS) Narratives	14
GIS Key Activities/Updates	14
GPS Data Collection and Site Verification	15
MapFlex System	
PMRF Project	15
CAD SYSTEM DEPLOYMENT	16
Wireless annual audit	17
Request for 9-1-1 Jurisdictional Boundaries	18
Open Service Requests – May 2016	20
Note:	20
Service Request Year-to-Date (YTD) Summary – 2016	20
5. E9-1-1 DATABASE SYNCHRONIZATION	21
Audit Summary Results – 2016 – tba	21
Audit Summary Results – July 1, 2016 msag VS. April 1, 2016 MSAG	tba21
Invalid MSAG Streets and Address Ranges – ESN x99 Records tba	21
Automatic Location Identification (ALI) Discrepancy Report tba	21

May 1, 2016 - May 31, 2016

1. PSAP OPERATIONS

9-1-1 CALL VOLUME - MAY 2016

(Source: West Safety Services (Intrado) Viper system

	9-1-1 Call Volume																
KAUAI PSAP Wireline		eline		Wire	less		VOIP		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls		
2016	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	Wireless	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI		No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other	% of Total Calls
MAY	4,177	580	13.89%	2,861	68.49%	45.51%	54.49%	131	3.14%	9	0.22%	0	0.00%	596	14.27%	0	0.00%

9-1-1 CALL VOLUME – CALENDAR YEAR 2016

							9-1	I-1 Call	Volum	e							
KAUA	I PSAP	Wire	eline		Wire	eless		vc)IP	Calls w	vith No LI	Admin	Calls		doned Ills	Other	Calls
2016	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		No. of Calls with No ALI		No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other	% of Total Calls
JAN	4,281	637	14.88%	2,816	65.78%	46.27%	53.73%	153	3.57%	10	0.23%	0	0.00%	665	15.53%	0	0.00%
FEB	4,090	609	14.89%	2,690	65.77%	46.02%	53.98%	116	2.84%	16	0.39%	0	0.00%	659	16.11%	0	0.00%
MAR	4,638	742	16.00%	2,986	64.38%	46.28%	53.72%	133	2.87%	15	0.32%	0	0.00%	762	16.43%	0	0.00%
APR	4,447	673	15.13%	2,944	66.20%	47.52%	52.48%	131	2.95%	12	0.27%	0	0.00%	687	15.45%	0	0.00%
MAY	4,177	580	13.89%	2,861	68.49%	45.51%	54.49%	131	3.14%	9	0.22%	0	0.00%	596	14.27%	0	0.00%
JUNE																	
JULY																	
AUG																	
SEPT																	
ОСТ																	
NOV																	
DEC																	
YTD	21,633	3,241		14,297				664		62		0		3,369		0	
MON AVG	4,327	648	14.96%	2,859	66.13%	46.32%	53.68%	133	3.07%	12	0.29%	0	0.00%	674	15.56%	0	0.00%

PSAP OPERATION NOTES:

- 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 total Wireline and Wireless counts respectively.
- All VoIP (Voice over Internet Protocol) type of 911 calls is combined in the Call Volume statistic.
- *911 Calls with no Ali 0.22% Statewide average = 0.18% Year 2015

May 1, 2016 - May 31, 2016

TEXT TO 911 - CURRENT MONTH - MAY 2016

NOTE:

- Kauai County has deployed a soft launch for Text to 911 on December 21, 2015.
- During this soft launch period, internal testing and training will be conducted.
- 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 Kauai County								
Month	Total received							
January	23							
February	11							
March	22							
April	4							
May	2							
June								
July								
August								
September								
October								
November								
December								
YTD	62							
Monthly Avg.	12.4							

May 1, 2016 - May 31, 2016

WIRELESS PSAP TESTING - MAY 2016

	KAUAI COUNTY - MAY 2016										
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:					
5/18/2016	Verizon	1	1	Kauai PSAP	Pass						

NOTES:

• There was one (1) scheduled Wireless 911 test for the month of May, 2106.

FOR YOUR INFORMATION

FYI	For Your Information
MLTS (Multi L	ine Telephone System)

"Most MLTS/PBX systems enable the digits 9-1-1 to be dialed and routed to a Public Safety Answering Point (PSAP). However, the vast majority of these systems do not provide granular location information with the 9-1-1 call to enable emergency responders to know the actual location of the emergency. In many instances a call from the 12th floor of a large office building may only provide the street address of the building. If the caller is unable to provide his or her location and no one else is available to provide assistance, such a lack of location information can prove fatal." (NENA: Multi-Line Telephone System & Private Branch Exchange) Technical Standards & Docs.

PRIMARY	MLTS/PBX	911 CALLS RECEIVED		
PSAPS*	MAY 2016	YEAR TO DATE 2016		
Oahu	3,594	17,315		
Hawaii	61	307		
Maui	89	493		
Molokai	0	1		
Kauai	16	114		
Total**	3,760	18,230		

^{*}PSAP totals does not include Military 911 calls.

^{**} Total numbers are a minimum estimated count. Presently, CENTRX & VoIP call volumes are combined with Multi & Single line systems and were not added to the total MLTS 911 calls.



May 1, 2016 - May 31, 2016

2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR - MAY 2016

KAUAI				9-1-1	TRANSA	CTIONS										
COUNTY		MSAG	А	LI Submitte	ed	Discr	Customer									
2016	Total	MSAG (A)	TN CR (B)	(B) ALI DR (C) VoIP		TNCR	ALI DR	VoIP DR	Addresses Affected							
JANUARY	14	14	0	0	0	198	0	0	70							
FEBRUARY	83	53	30	0	0	217	0	0	60							
MARCH	30	8	22	0	0	232	0	0	9							
APRIL	25	21	4	0	0	234	0	0	19							
MAY	37	30	7	0	0	208	0	0	78							
JUNE																
JULY																
AUGUST																
SEPTEMBER																
OCTOBER																
NOVEMBER																
DECEMBER																
TOTAL YTD	189	126	63	0	0				236							
AVG PER MONTH	38	25	13	0	0				47							

Definitions

(A) Master Street Address Guide - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.

- (B) **T**elephone **N**umber **C**hange **R**equest Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 499 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.



May 1, 2016 - May 31, 2016

MSAG CURRENT MONTH NOTES:

A total of thirty-seven (37) MSAG transactions were processed in 9-1-1 Net during the month of May 2016. Thirty (30) 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 78 customer ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

All Kauai Telephone Number Change Requests (TN CR) transactions have been processed in 9-1-1 Net with valid MSAG addresses, as a result of the ESN 499 clean-up effort. ESN 499 TN CRs must be validated against HT records and approved by the end user Hawaiian Telcom customer before updating the ALI record. Akimeka is awaiting feedback from Intrado on the TN CRs that have been submitted for correction. In May 2016 there were thirty-three (33) TN CRs completed and as a result, one (1) ESN 499 street record was deleted from the MSAG database.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- There are 208 Open TN CR Transactions as of May 31, 2016.
- Please refer to "TNCR Current Status" chart in the next section.

146 Open TN CR transactions are a direct result of the ESN 499 clean-up and are awaiting approval from Hawaiian Telcom, Inc. 62 Open TN CR transactions are a result of the Dispatchable Location project submitted in September (refer to the "Dispatchable Location" chart below). Akimeka continues to monitor and track the progress of the Referred records. Once a telephone number is submitted to Intrado for correction, it must be verified against HT records and/or approved by the customer. Intrado's internal process requires calling each telephone customer individually for approval to update an address in the 9-1-1 database.

- There are no Open ALI-DRs as of May 31, 2016
- There are no Open VoIP DRs as of May 31, 2016

May 1, 2016 - May 31, 2016

TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS - MAY, 2016

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 (Intrado) 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 WEST SAFETY SERVICES (INTRADO)	OPENED TNCRS REFERRED TO TELCO BY WEST SAFETY SERVICES (INTRADO)	TOTAL UNOPENED TNCR RECORDS					
KAUAI	208	16	51	141					

STATUS

TOTAL TNCRs SUBMITTED - The total number of TNCR requests for modification that have been submitted in 9-1-1 NET.

<u>PENDING STATUS</u> - 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.

<u>REFERRED STATUS</u> - 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 (Intrado) 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.



May 1, 2016 - May 31, 2016

DISPATCHABLE LOCATION - STATUS AS OF - MAY 2016 - PENDING

NARRATIVE:

During the August 2015 State of Hawaii 911 Board meeting, Akimeka provided a "State of Hawaii PSAPs Proposed ALI Compliancy with FCC 15-9" presentation. Based on the 9-1-1 Board's confirmation to add the "Dispatchable Location" information into the ALI database, Akimeka researched the format standards of each pertinent field, and tested the delivery of the data to the PSAP. After a few configuration adjustments (eliminating the TelCo comments field from appearing on the ALI Screen), Akimeka standardized an additional information data format to proceed with this project.

During the month of August 2015, Akimeka started a pilot project, entering additional location information to a verified MSAG address with multiple telephone numbers. Specifically the **Kukui Grove Center at 302600 Kaumualii Hwy, Lihue**. The "Dispatchable Location" data is entered into the "Driving Directions" field in the 9-1-1 Net system, and will display on the Viper Power 911 ALI Screen in the "Exact" field should a 911 call be received from that telephone number. Sixty two **(62)** Telephone Number Change Requests (TN CR) transactions were processed as a result of the Dispatchable Location Project. These transactions have not been updated in 9-1-1 Net pending research by Hawaiian Tel and West Safety Services (Intrado) for providing an additional 60 character field in the ALI data stream to accommodate Dispatchable Location information as an alternative to using the "Driving Directions" field. Until this field is created, no further Dispatchable Location transactions will be submitted. During the months of November, December, and January as Akimeka awaits for the notice to proceed, Akimeka has continued to research and prepare "Driving Instructions" for other shopping malls that will assist the Kauai Dispatchers with their 911 calls for service. A total of 830 telephone records are complete and ready for submittal, however there were no further developments as of May 2016 to proceed.

Dispatchable Location						
Common Name Place	MSAG Address	2016	Number of TNCR* Transactions Prepared	Number of TNCR* Transactions Submitted	Number of Transactions Processed**	
	2015 Carryover	2015	286	62	0	
Ching Young Shopping Center	505190 Kuhio Hwy, Hanalei		84			
Eleele Shopping Center	4469 Waialo Rd, Port Allen	Jan	77			
Hanalei Center	505161 Kuhio Hwy, Hanalei		46			
Princeville Center	504280 Kuhio Hwy, Princeville	Feb	181			
Alii Kai Resort	3830 Edward Rd, Princeville		37			
Sealodge	3700 Kamehameha Rd, Princeville	Mar	48			
Nihi Kai Villlas	1870 Hoone Rd, Poipu		71			
		Apr	0			
		May	0			
		Total	830	62	0	

*project currently on hold by West Safety Services (Intrado)/Hawaiian Telcom.

Definition

Dispatchable Location is defined in the FCC 15-9 Docket as the verified or corroborated street address of the calling party plus additional information such as floor, suite, apartment or similar information that may be needed to adequately identify the location of the calling party.

TNCR* Telephone Number Change Request - Transactions submitted to Intrado to update/edit Dispatchable Location

in the Exact field on the ALI Screen.

Processed** may include inactive telephone numbers that were removed from the ALI Database.



May 1, 2016 - May 31, 2016

3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – MAY 2016

MAPPING LAYERS UPDATED (PART I)

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

KAUAI COUNTY				
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks	
	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE			
		(Listee	d Alphabetically)	
		05/26/16		
	5/19/2016		Added twenty-two (22) addresses in Kokee	
	5/18/2016		Added twenty-three (23) addresses in Kokee	
	5/18/2016		Added thirteen (13) addresses in Mana	
	5/17/2016		Added five (5) addresses in Mana	
	5/17/2016		Spatially corrected thirty-four (34) address points in Mana	
	5/17/2016		Updated thirty-two (32) addresses in Mana	
	5/16/2016		Added one (1) address in Mana	
	5/16/2016		Updated eighty-one (81) addresses in Mana	
	5/16/2016		Spatially corrected thirty-eight (38) address points in Mana	
	5/13/2016		Spatially corrected nineteen (19) address points in Mana	
	5/13/2016		Added two (2) addresses in Mana	
Address Points	5/13/2016		Updated nineteen (19) addresses in Mana	
Address Foliits		05/12/16		
	5/12/2016		Added four (4) addresses in Mana	
	5/12/2016		Spatially corrected thirty-eight (38) address points in Mana	
	5/11/2016		Updated one (1) address in Mana	
	5/11/2016		Spatially corrected one (1) address point in Mana	
	5/11/2016		Spatially corrected one (1) address points in Wailua	
	5/11/2016		Added one (1) address in Wailua	
	5/10/2016		Added eight (8) addresses in Mana	
	5/10/2016		Updated thirty-nine (39) addresses in Mana	
	5/10/2016		Spatially corrected thirty-nine (39) address points in Mana	
	5/9/2016		Added four (4) address points in Mana	
	5/9/2016		Spatially corrected nineteen (19) street centerline segments in Mana	
	5/9/2016		Updated nineteen (19) addresses in Mana	
Airports				
Bridges				
Building Footprints				
Bus Stops				
Churches				
Coastal Names				
Coastline				
Common Places				

May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART II)

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

KAUAI COUNTY			
	Akimeka GIS		
Type of Layer	Server	Date GIS	Other/Remarks
Type of Layer	Date Created/	Delivered	Other/Remarks
	Edits Performed		
	CRITICAL 9-1-1		Y LAYERS FOR DISPATCH & RESPONSE
		(Listed	l Alphabetically)
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			
Major Roads			
Medic Beats			
Medic Districts			
Medic Response Areas			
Medic Stations			
Medical Facilities			
Milepost Markers			
MSAG Communities			
Net Junctions			
Ocean Rescue Boundaries			
Ocean Safety			
Parcels			
Parks			



May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART III)

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

KAUAI COUNTY			
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks
	CRITICAL 9-1-1		TY LAYERS FOR DISPATCH & RESPONSE
	T	(Liste	d Alphabetically)
Parks Polygon			
Points of Interest			
Police Beats			
Police Districts			
Police Response Areas			
Police Stations			
Post Offices			
Schools			
		05/26/16	
	5/19/2016		Modified two (2) street centerline ranges in Mana
	5/18/2016		Spatially corrected two (2) street centerline segments in Mana
	5/18/2016		Modified four (4) street centerline segment ranges in Mana
	5/17/2016		Modified seven (7) street centerline segment ranges in Mana
	5/17/2016		Added one (1) street centerline segment in Mana
	5/16/2016		Modified eleven (11) street centerline segment ranges in Mana
0 0	5/16/2016		Added one (1) street centerline segment in Mana
Street Centerlines	5/13/2016		Spatially corrected four (4) street centerline segments in Mana
		05/12/16	-
	5/12/2016		Spatially corrected three (3) street centerline segments in Mana
	5/12/2016		Modified three (3) street centerline segment ranges in Mana
	5/12/2016		Updated thirty-nine (39) addresses in Mana
	5/10/2016		Spatially corrected one (1) street centerline segment in Mana
	5/9/2016		Spatially corrected five (5) street centerline segments in Mana
	5/9/2016		Added one (1) street centerline segment in Mana
Subdivisions			
Tow Jurisdictions			
Tsunami Evacuation Zones			
Tsunami Heights			
Waste Water Plants			
	5/27/2016		Per ATT CRS
WSP Cell Sectors		05/26/16	
war cen sectors		05/12/16	
	5/11/2016		Per VZW CRS

May 1, 2016 - May 31, 2016

MAPPING LAYERS UPDATED (PART IV)

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

KAUAI COUNTY			
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
	5/27/2016		Per ATT CRS
WSP Cell Towers		05/26/16	
		05/12/16	
	5/11/2016	·	Per VZW CRS

NOTE:

• The Parcels layer is provided by Kauai County. Akimeka performs edits on the spatial information of the layer for 9-1-1 purposes. Changes to the attribute table are made when needed. The Parcels layer uploaded to the PSAP GIS server is intended for 9-1-1 purposes only and should not be disseminated to other county agencies.

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
5/26/2016	Delivered updated Address Points, Street Centerlines, WSP Cell Sectors, WSP Cell Towers and GEO.xml for GeoComm
5/26/2016	Delivered updated Address Points, Street Centerlines, WSP Cell Sectors and WSP Cell Towers for MapFlex
5/25/2016	Prepared updated Address Points, Street Centerlines, WSP Cell Sectors, WSP Cell Towers for a GeoComm delivery
5/25/2016	Prepared updated Address Points, Street Centerlines, WSP Cell Sectors and WSP Cell Towers for MapFlex
5/12/2016	Prepared & delivered updated Address Points, Street Centerlines, WSP Cell Sectors and WSP Cell Towers for MapFlex
5/12/2016	Prepared & delivered updated Address Points, Street Centerlines, WSP Cell Sectors, WSP Cell Towers and GEO.xml for GeoComm



May 1, 2016 - May 31, 2016

GPS DATA COLLECTION AND SITE VERIFICATION

During the month of May, 2016, there were no scheduled GPS data collection and site verifications required. Data capture will continue to be coordinated on an as needed basis.

MAPFLEX SYSTEM

During the month of May 2016, the MapFlex system performed without any issues and deliverables continued on schedule.

Considering that the MapFlex initiative being provided by Hawaiian Telecom and sub-contractor, Intrado, 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 year.

During the month of May 2016, there were continued GIS deliverables into the MapFlex system for Hawaii County, Maui County, Kauai County, and Honolulu Civilian PSAPs. The MapFlex deployment has been concluded and is now considered a running system capable of receiving updates regularly.

- 1. Akimeka delivered GIS data to the MapFlex system on the following dates in May 2016
 - a. **Hawaii County** May 10th and May 24th
 - b. **Maui County** May 11th and May 25th
 - c. Kauai County May 12th and May 26th
 - d. Honolulu May 13th and May 27th

PMRF PROJECT

Beginning April 1, 2016, Akimeka kicked off a project to incorporate new data provided by the Navy from the Navy Emergency Management Addressing Project (NEMAP) on the Pacific Missile Range Facility (PMRF). These changes to the PMRF in Mana included Address Points and Street Centerline range changes were translated into a more accurate application for the Kauai Police Department.

The PMRF updates were tracked and recorded in April's MSR as this was an ongoing project until all updates were incorporated. In addition, all subsequent changes to the MSAG database were coordinated by Akimeka's MSAG Coordinators.

Akimeka completed this project on May 19th, 2016 and it the new content is now fully available to the Kauai Police Department.

May 1, 2016 - May 31, 2016

CAD SYSTEM DEPLOYMENT

During the 2015 and 2016 year, the Kauai County Police Department has conducted thorough research and has decided to implement a new CAD (Computer Aided Dispatch) system. Through their selection process, they have chosen the Spillman Technologies CAD system to best fit their operational needs. Throughout the coming months there will be much coordination between the Kauai Police Department, Akimeka, and Spillman Technologies to deploy the Spillman Technologies CAD system with absolute success.

- 1. The Kauai Police Department, Akimeka, and Spillman Technologies have begun introductory coordination and information sharing to ensure a successful deployment of the new CAD system, which will improve dispatch efficiency.
 - a. During January and February 2016, Akimeka and Spillman Technologies had held several conversations and webinars pertaining to the Hawaii County Police Department implementation, however because much of the processes in the implementation will overlap with the work effort required for Kauai County, the information gathered during this time will be applied to the Kauai Police Department project.
 - b. During the month of May 2016, the final NDA was been completed which includes the Kauai Police Department, Akimeka, and Spillman Technologies.
 - c. On May 31, 2016, Akimeka's GIS Manager and two representatives from the Spillman Technologies team met to discuss the timeline, requirements, and where they can work together to make this a successful project and on schedule.
 - i. Some milestones were identified during the discussion, so that the coordination of GIS data to be used in the new CAD system can take place. Below are the scheduled milestones as of May 31, 2016.
 - 1. June 20, 2016 Initial Data Submission/Review
 - 2. July 1, 2016 Final Data Review
 - 3. July 8, 2016 GIS Data Standup on Server
 - ii. Additional milestones after this coordination will certainly take place and will be determined during the July 2016 timeframe. There are some dates identified with the current "go live" dates.
 - 1. November 14, 2016 Mock Go-Live Date
 - 2. December 5, 2016 Official Go-Live Date



May 1, 2016 - May 31, 2016

WIRELESS ANNUAL AUDIT

During the month of February 2016, the wireless annual audit for Verizon was coordinated and completed as indicated in the Wireless Audit Chart. However during the audit process, it was identified that changes which had been sent through the CRS process for all WSPs were possibly not making their way back to the wireless FMCC database (responsible for information provided via the ALI).

- 1. On February 29, 2016, after completing the review of the Annual Audit for Verizon wireless Akimeka contacted West to discuss the reason why the annual audit synchronization has degraded in the match accuracy.
 - a. Note The CRS process performed throughout the year for all WSPs deals with routine maintenance performed on the sites/sectors. The Annual Audit is intended to identify any possible gaps in that process and seeks reconciliation in an effort to re-synchronize the databases. If there are no missed CRSs throughout the year and the database match percentage decreases, then there are apparent issues.
- 2. On March 15, 2016, Akimeka and West held a conference call to discuss the matter. During the conversation it was identified that the changes sent back from Akimeka to West after accuracy validation, are processed into the FMCC. The issue that Akimeka is seeing when the Annual Audit is provided is resulting from a script West put in place in 2013 to output the CRSs into the approved format at that time.
 - a. The issue is that the format has changed over time due to new technology and more hexadecimal numbering of the wireless sectors. In order to accommodate those changes, Akimeka has developed a translation into an applicable format which the PSAPs are able to use. The format that West is providing each Annual Audit and CRS is overriding the changes within the FMCC, therefore give the appearance of not being synchronized in that process but are. This helps to explain why the wireless testing results are accurate, and the PSAPs are not experiencing a large number of discrepancies in the Mapping Systems when matched with the ALI.
- 3. Akimeka followed up with West on March 30, 2016, to see if West has re-scripted the format.
 - a. West replied that unfortunately it will require system development at West. Melissa Norton of West did mention that the particular system that needs to be changed is currently backlogged with a few large projects. She opened a Product Development Request at West but there is no ETA on the enhancement. In order to speed up the request, she is working to bundle the request with several other State's requests.
- 4. Akimeka will continue to follow up on the process to ensure the wireless databases are maintained accurately. With the big push by the WSPs for more LTE sites, which are having the impact on the hexadecimal numbering, Akimeka is hopeful that West can resolve this issue. The additional work involved to re-validate information takes a significant effort and allows for discrepancy. The Annual Audit is supposed to be a raw comparison to the condition of the data in both the FMCC and the GIS database provided in the Mapping Systems. Without both in its raw format, the comparison becomes unclear as to the real condition of the FMCC database.
- 5. Throughout the month of April 2016, Akimeka had been provided several TVWs by the WSPs for testing and most of the information was good for testing but there was an unusually high number of records that were either missing or were incorrect. Virtually all TVWs sent to Akimeka had some variety of discrepancy in them. This was only applicable to Verizon at the time and since the Annual Audit with Verizon had been completed, bringing the databases to 100% match rate, a reason for the mismatch in TVW information was perplexing. It certainly required more investigation into what was occurring.
- 6. On April 21, 2016, Akimeka was notified of yet another set of TVWs with issues and the WSP and West investigated their end and said everything was matching. Because the Annual Audit was completed, matching West and Akimeka databases, but yet the TVWs produced from the West database were not matching, something was highly unusual.
 - a. Later the same day, Akimeka provided an example of the discrepancy back to West detailing one of the records along a timeline. Information provided in the TVW matched with the record from 2015. Since that time, there were

May 1, 2016 - May 31, 2016

several updates, including the Annual Audit. This indicated that the TVWs being generated by West were not accurate and it also was indicating the Annual Audit sent back to West was not be uploaded. This is a major issue.

- 7. To confirm Akimeka's suspicion that the Annual Audit updates were not being uploaded by West into the FMCC, Akimeka followed up with implementation specialist at West, who the Audit was coordinated with.
 - a. West sent a reply on April 25, 2016, that the audit was not fully completed at West and they were in their final stages before sending changes to the database and on to Verizon. From West "there were a lot of changes that came from the audit which is where you may be seeing the discrepancies. Once Verizon has called in the hot cuts (changes), the data should match the audit sheet you sent".
 - b. This was confirmation that the audit was still not being processed fully by West after 2 months and that the issues with mismatched information in the TVWs were as a result of this.
- 8. On May 23, 2016, Akimeka, West, and Verizon held a conference call to discuss the issue in more detail.
 - a. West provided a brief that indicated the Verizon Annual Audit was complete and that the West FMCC database and the Verizon TVWs match.
 - b. Akimeka used several examples of changes which have occurred more recently (all during 2016 year), which were missing or outdated in both the West and Verizon databases.
 - West agreed that they must be behind in processing the changes Akimeka sends to them via the CRSs and the Annual Audit.
 - d. Akimeka brought up several concerns regarding the length of time it is taking West to process the changes and the inability to monitor the changes that occur with every site and sector. Akimeka mentioned that in all of the examples provided where the TVWs were incorrect, Akimeka has been able to pull every change which has occurred to that record. Akimeka maintains an extensive archive of all additions, changes, and deletes dating back in many cases more than 5 years. Akimeka also mentioned that we perform updates based on a change triggered by the WSPs. There is no other form of change that occurs outside of the mechanisms communicated to Akimeka by both West and the WSPs via the CRS or Annual Audits.
 - e. It was agreed that West would follow up with their one (1) resource assigned to the annual audit and see why this has taken almost three months to complete.
 - i. Note the review and update process completed by Akimeka took six (6) business days to complete.
- 9. There were no further follow up discussions or reports by West throughout the remainder of May 2016

REQUEST FOR 9-1-1 JURISDICTIONAL BOUNDARIES

On March 17, 2016, West had requested information for each of the PSAPs in the State of Hawaii, with the exception of the Honolulu Police Department and Regional Dispatch Center. Akimeka has followed up with West to see if the Honolulu Police Department PSAP was supposed to be included in this request.

- 1. On March 17, 2016, West requested that each PSAP fill out an attached questionnaire and to provide the PSAP Jurisdictional Boundaries (to include VoIP, Wireless, Text, and Alarms).
- 2. Akimeka prepared the boundaries of each of the PSAP Jurisdictional Boundaries which included all requested attribution. Given the geography of the Hawaiian Islands, and the operational responses of each PSAP which includes ocean responses, Akimeka included a buffer for each of the PSAP Boundaries that extend into the ocean. This reflects the true nature of the PSAP Jurisdictional Boundary response area and also covers the distance over water which can account for possible Lat/Longs provided during a Text-to-911 call to the PSAP. Since the system is intended to use the location information to determine routing, inclusion of the water area into the PSAP polygons was a more accurate approach.

Page 18 of 21

Kauai County May 2016

May 1, 2016 - May 31, 2016

- 3. On March 23, 2016, the Akimeka GIS Manager notified West that this information was ready and requested a secure method of transferring the data. Throughout the remainder of March 2016, there was no reply from West.
- 4. On April 19, 2016, West followed back up with the Akimeka GIS Manager. The West employee was unfamiliar with using an ftp site and was going to touch base with her supervisors to find a more secure manner of transferring the data. Throughout the remainder of April 2016, Akimeka did not hear back.
- 5. On May 6, 2016, West sent Akimeka a notification that their ftp site was ready for data to be sent now.
- 6. On May 9, 2016, Akimeka uploaded the PSAP Jurisdictional Boundary data onto the West ftp site and requested confirmation once they receive the data.
- 7. On May 19 2016, Akimeka received a phone call from West notifying that the data was accepted.

Page 19 of 21

May 1, 2016 - May 31, 2016

OPEN SERVICE REQUESTS - MAY 2016

#	Date	Ticket #	Description	Category	Urgency	Comments
			None			

NOTE:

There are no open service requests for May 2016.

SERVICE REQUEST YEAR-TO-DATE (YTD) SUMMARY - 2016

K	(AUAI COU	INTY		MSAG SERVICE REQUEST CATEGORIES						
2016	TO	ΓAL	Onon	WIRE	LINE	WIRE	LESS	VoIP		
2016	Created Closed		Open	Created	Closed	Created	Closed	Created	Closed	
2015 Carryover*			0							
January	0	0	0	0	0	0	0	0	0	
February	0	0	0	0	0	0	0	0	0	
March	0	0	0	0	0	0	0	0	0	
April	0	0	0	0	0	0	0	0	0	
May	0	0	0	0	0	0	0	0	0	
June										
July										
August										
September										
October										
November			•						·	
December										
TOTAL	0	0	0	0	0	0	0	0	0	

* The 2015 Carryover row indicated the number of Service Requests that were opened in 2015 and brought forward into
2016 in an effort to track the service request until completion.
Detailed information on service tickets are available upon request.

	Category	Description
	Wireline	Telephone Number (ALI) Discrepancies from land line phones that have been submitted to West Safety Services (Intrado) via 9-1-1 Net for correction.
<u>Definitions:</u>	Wireless	Telephone Number (ALI) Discrepancies from phones that were land lines at one time, and were ported out to a wireless carrier. However, the phone number was never removed from the MSAG database.
	VoIP	Telephone Number (ALI) Discrepancies from VoIP phones that have been submitted to Time Warner Cable (TWCBL) for correction

May 1, 2016 - May 31, 2016

5. E9-1-1 DATABASE SYNCHRONIZATION

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

Next scheduled Data Base Synchronization – July 2016

AUDIT SUMMARY RESULTS - 2016 - TBA

AUDIT SUMMARY RESULTS - JULY 1, 2016 MSAG VS. APRIL 1, 2016 MSAG -- TBA

INVALID MSAG STREETS AND ADDRESS RANGES - ESN X99 RECORDS -- TBA

AUTOMATIC LOCATION IDENTIFICATION (ALI) DISCREPANCY REPORT -- TBA

Kauai County May 2016

Bu	dget Ana	alysis				
EV 2015 12	Act	uals	Annual	% of Budget	Forecast	\$ Better/(Worse
FY 2015-16	May	FY-T-D	Budget	Expended	Forecast	Budget
Receipts:						
Enhanced 911 Surcharge Collection	797,047	8,796,085	9,252,500	95%	9,600,000	347,500
Interest Income	2,739	18,996	2,500	760%	23,000	20,500
Receipts	799,786	8,815,081	9,255,000	95%	9,623,000	368,000
Disbursements:	(47.247)	(05.005)	(252.452)	2001	(455.444)	05.000
New & Emerging Tech. Training	(17,347)	(95,396)	(250,150)	38%	(165,141)	85,009
Non-Recurring Expenses		(2,303,374)	(2,722,515)	85%	(2,707,305)	15,210
Recurring Expenses:	(40.050)	(500 225)	(4.420.700)	E40/	(010.035)	- 240 774
Administration	(18,859)	(580,225)	(1,129,700)	51%	(910,926)	218,774
Maintenance	(189,177)	(1,417,922)		57%	(3,121,266)	(646,742
Telecommunications	(289,943)	(1,649,098)	(2,080,954)	79%	(2,087,663)	(6,709
Other		(7,200)	(7,600)	95%	(7,200)	400
Disbursements	(515,326)	(6,053,216)	(8,665,443)	70%	(8,999,500)	(334,057
	(010,020)	(0,000,000)	(0,000,110)	1 3/1	(2,222,222)	(00),001
Net Receipts/(Disbursements)	284,460	2,761,865	589,557		623,500	33,943
		_				
Casi	h Flow Ai	nalysis	1			
Net Receipts/(Disbursements)	284,460	2,761,865				
Encumbrance Paydowns:				Encumb. Bal.		
FY 2011 (Kauai)	(29,166)	(303,352)		115,648		
FY 2012 (HFD/EDS/HPD)	(= , = = ,	(56,040)		639,352		
FY 2014	(263,667)	(401,955)		1,119,650		
FY 2015	(5,180)	(2,201,487)		2,329,122		
FY 2016		2,300,000		2,300,000		
Accounts Receivable (Offset)		2,952	see note 1			
Net Encumbrance Adds/(Paydown)	(298,013)	(659,883)				
Net Cash Inflow/(Outflow)	(13,554)	2,101,983				
Bank Balance Analysis:		46 700 015				
ADD: July 1, 2015 Beginning Balance		16,789,216				
Net Bank Balance		18,891,199				
Outstanding Ecumb/Accruals		(6,503,771)				
Unencumbered Cash Balance		12,387,428				
Note 1- Balance paid e911 fund for no						

MONTH OF MAY 2016 (11 Mos)	Haw aii PSAP	Kauai PSAP	Maui PSAP	Oahu PSAP	ADMIN	TOTAL
TOTAL RECEIPTS:	-	-	-	-	799,786	799,786
DISBURSEMENTS:						
6200 New & Emerg. Tech Train.						
6201 911 Goes to WashDC	7,018	-	-	8,202	-	15,221
6222 TriTech CAD Users						
6222.02 HFD Users	_	-	-	2,126	-	2,126
Total 6222 TriTech CAD Users	-	-	-	2,126	-	2,126
Total 6200 New & Emerg. Tech Train.	7,018	-	-	10,329	-	17,347
6400 RECURRING EXPENSES						
6401 ADMINISTRATION						
6401.01 Exec Dir. Services	-	-	-	-	14,788	14,788
6401.02 ElectronSignatur	-	-	-	-	240	240
6401.08 Board Member Travel	-	-	-	-	2,951	2,951
6401.12 NASNA Dues	-	-	-	-	500	500
6402.21 Cell Phone Charges	-	-	-	-	201	201
6402.22 Office Supplies	-	-	-	-	179	179
Total 6401 ADMINISTRATION	-	-	-	-	18,859	18,859
6402 MAINTENANCE						
6402.05 Logging RecordMaint	-	-	-	60,775	-	60,775
6402.07 0011 9-1-1MSAG Maint.	41,348	-	38,918	48,137	-	128,402
Total 6402 MAINTENANCE	41,348	-	38,918	108,912	-	189,177
6403 Other RECURRING						
6403.01 Telcom Charges						
6403.0101 Alt. PSAP 9-1-1 Del	-	6,316	-	-	-	6,316
6403.0102 Long Distance	58	-	29	-	-	86
6403.0109 Telcom Trunk	51,057	27,849	23,208	78,907	-	181,021
6403.0112 HPD CML Viper-Kapolei	-	-	-	10,194	-	10,194
6403.0113 HPDCMLViper-Alapai	-	-	-	1,167	-	1,167
6403.0114 SD Viper (OSL) (3)	-	-	-	10,051	-	10,051
KPD CML Viper	-	81,108	-	-	-	81,108
Total 6403.01 Telcom Charges	51,115	115,273	23,237	100,318	-	289,943
Total 6403 Other RECURRING	51,115	115,273	23,237	100,318	-	289,943
Total 6400 RECURRING EXPENSES	92,463	115,273	62,155	209,230	18,859	497,979
Total DISBURSEMENTS	99,481	115,273	62,155	219,559	18,859	515,326

	Hawaii PSAP	Kauai PSAP	Maui PSAP	Oahu PSAP	ADMIN		TOTAL	
FISCAL-YTD MAY 2016 (11 mos.)	11 mos.	11 mos.	11 mos.	11 mos.	11 mos.	11 mos.	ANNUAL Budget	\$ Over/(UNDER Budget
otal RECEIPTS	-	-	-	-	8,815,081	8,815,081	9,255,000	(439,919
SBURSEMENTS:								
6200 New & Emerg. Tech Train.								
6201 911 Goes to WashDC	7,018	-	8,399	8,202	17,287	40,906	46,500	(5,59
6203 APCO New Tech Conference	-	-	-	-	2,207	2,207	11,200	(8,99
6204 APCO Conference	-	-	7,238	13,123	7,243	27,604	35,060	(7,45
6210 IWCE	-	-	-	-	2,162	2,162	2,500	(33
6212 NASNA Conference	-	-	-	-	2,148	2,148	2,150	(
6214 Nena Conference	(2,588)	2,090	18	(1,070)	2,348	799	34,800	(34,00
6215 NENA Tech Dev. Conf	-	-	2,821	-	-	2,821	2,830	
6216 Smart911	-	-	-	-	-	-	5,200	(5,20
6222 TriTech CAD Users								
6222.01 EMS Users	-	-	-	5,272	_	5,272	6,000	(72
6222.02 HFD Users	-	-	-	3,585	-	3,585	6,000	(2,4
Total 6222 TriTech CAD Users	_	-	-	8,857	_	8,857	12,000	(3,14
6228 HxGN Live Hexagon Conf	-	-	(1,005)	-	-	(1,005)	18,875	(19,88
6230 Other Training								
6230.01 HPD (O/T)	_	-	_	8,897	_	8,897	8,900	
Total 6230 Other Training	-	-	-	8,897	-	8,897	8,900	
6200 New & Emerg. Tech Train Other	-	-	-	-	-	-	70,135	(70,1
Total 6200 New & Emerg. Tech Train.	4,431	2,090	17,471	38,009	33,395	95,396	250,150	(154,7
6300 Non-RECURRING						·	-	
6301 CAD Replac/Upgrade								
6301.05 Kauai Police Dept	_	2,300,000	_	_	_	2,300,000	2,300,000	_
6301.06 Maui PD	_	-	_	_	_	-	82,000	(82,0
6301.07 So. Maui Buildout	_	-	_	_	_	_	200,000	(200,0
6301.08 CAD Related Expenses	_	-	_	3,374	_	3,374	-	3,3
Total 6301 CAD Replac/Upgrade	_	2,300,000	_	3,374	_	-	-	_
6303 Computers		,,-		-,				
6303.13 UPS Battery-HPD	_	-	_	_	_	_	3,115	(3,1
6303.23 HPD SMART911 S/W	_	-	_	_	_	_	62,400	(62,40
6303.24 PRI Install	_	-	_	_	_	_	10,000	(10,00
6303.25 Workstation	_	-	_	_	_	_	65,000	(65,0
Total 6303 Computers	_	_	_	_	-	_	140,515	(140,5
Total 6300 Non-RECURRING	_	2,300,000	_	3,374		2,303,374	2,722,515	(419,14

	Hawaii PSAP	Kauai PSAP	Maui PSAP	Oahu PSAP	ADMIN		TOTAL	
FISCAL-YTD MAY 2016 (11 mos.)	11 mos.	11 mos.	11 mos.	11 mos.	11 mos.	11 mos.	ANNUAL Budget	\$ Over/(UND Budget
400 RECURRING EXPENSES								
6401 ADMINISTRATION								
6401.01 Exec Dir. Services	_	-	-	-	121,331	121,331	198,000	(76,6
6401.02 ElectronSignatur	-	-	-	-	240	240	250	(
6401.05 Audit Expense	-	-	-	-	13,000	13,000	13,025	(
6401.06 Bank Charge	-	-	-	-	-	-	50	
6401.08 Board Member Travel	-	-	-	-	27,405	27,405	25,000	2,4
6401.09 DB&F Assessments								
6401.0101 DB&F Admin. Assess	-	-	-	-	45,578	45,578	155,000	(109,4
6401.0102 DB&F Rev Assessment	-	-	-	-	319,652	319,652	462,625	(142,9
Total 6401.09 DB&F Assessments	-	-	-	-	365,230	365,230	617,625	(252,3
6401.11 Miscellaneous Expense	-	-	-	-	(0)	(0)	-	
6401.12 NASNA Dues	_	_	_	-	650	650	150	
6401.13 Parking Permits	-	-	_	-	400	400	400	
6401.15 WSP Cost Recovery								
6401.0101 Sprint/Nextel	_	_	_	_	4,253	4,253	-	4,3
6401.15 WSP Cost Recovery - Other	_	_	_	-	39,120	39,120	70,000	(30,
Total 6401.15 WSP Cost Recovery	_	_	_	_	43,372	43,372	70,000	(26,6
6401.17 ADA Compliance	_	_	_	_	-	-	200	(2
6401.18 AG Legal Fees	_	_	_	_	_	_	25,000	(25,0
6401.19 Public Education	_	_	_	_	8.721	8,721	30,000	(21,
6401.20 RCUH Contract	_	_	_	_	(5,881)	(5,881)	-	(5,
6402.21 Cell Phone Charges	_	_	_	_	1,098	1,098	_	1,0
6402.22 Office Supplies	_	_	_	_	4,660	4,660	5,000	(:
6402.23 NG911 Transition Plan	_	_	_	_	-,000	-,,555	145,000	(145,
Total 6401 ADMINISTRATION	_	_	_	_	580,225	580,225	1,129,700	(549,4
6402 MAINTENANCE					000,220	000,220	1,120,100	(0-10,
6402.02 Imagery Lic Agree	_	_	О	_	_	0	447,015	(447,
6402.05 Logging RecordMaint	_		· ·	60.775	_	60.775	60,775	(,
6402.07 0011 9-1-1MSAG Maint.	206,738	33,349	194,591	481,365		916,042	1,323,378	(407,
6402.08 CAD Maintenance	98,084	33,343	170,000	173,021		441,105	638,752	(197,
6402.13 Software Maintenance	30,004		170,000	173,021	_	441,103	030,732	(137,
6402.131 Integraph DB S/W Maint		_	-	_			4,604	(4,
Total 6402.13 Software Maintenance			_			_	4,604	(4,
-								
Total 6402 MAINTENANCE	304,822	33,349	364,591	715,160		1,417,922	2,474,524	(1,056,
6403 Other RECURRING								
6403.01 Telcom Charges								_
6403.0101 Alt. PSAP 9-1-1 Del	285	6,316	113	-	-	6,316 481	-	6,
6403.0102 Long Distance		84			-		2,046	(1,
6403.0109 Telcom Trunk	255,287	83,549 673	232,107	867,975	-	1,438,918 673	1,622,656	(183,
6403.0111 WiringAltDispatch	-		_	-	_		237,736	(237,
6403.0112 HPD CML Viper-Kapolei	-	-	-	80,680	_	80,680	140,916	(60,
6403.0113 HPDCMLViper-Alapai	-	-	-	6,873	_	6,873	-	6,8
6403.0114 SD Viper (OSL) (3)	-		-	33,879	_	33,879	54,000	(20,
6403.0115 Text-to-911 Service	-	-	-	-	-	-	23,300	(23,
6403.0116 Alt PSAP Call Route	-	-	-	-	-	-	300	(:
6403.0117 Telecom Chgs-Other	-	171	-	-	-	171	-	
KPD CML Viper	-	81,108	-	-	-	81,108	-	81,
Total 6403.01 Telcom Charges	255,572	171,900	232,220	989,406	-	1,649,098	2,080,954	(431,
6403.02 EMS Tower Lease	-	-	-	7,200	-	7,200	7,600	(-
Total 6403 Other RECURRING	255,572	171,900	232,220	996,606	-	1,656,298	2,088,554	(432,
otal 6400 RECURRING EXPENSES	560,393	205,249	596,811	1,711,767	580,225	3,654,446	5,692,778	(2,038,
DISBURSEMENTS	564,824	2,507,339	614,283	1,753,150	613,620	6,053,216	8,665,443	(2,612,

FY 2016 STRATEGIC BUDGET PLAN	HAWAII PSAP	OAHU PSAP	MAUI PSAP	Molokai PSAP	KAUAI PSAP	ADMIN	New & Emerging Technology Training	TOTAL	Board Approval Date
Annual of TV 2016 Charter of a Parish Disco	002 547	2 577 220	046 073	CE 225	2.005.720	1 102 700	246 650	0.000.163	6/0/2015
Approved FY 2016 Strategic Budget Plan	992,547	2,577,329	946,873	65,335	3,065,729	1,103,700	246,650	8,998,163	6/9/2015
NASNA						2,650	(2,650)		
Board Approved Changes:									
Executive Director (1) - APCO						3,000	(3,000)		6/9/2015
Board member (1) - APCO						3,000	(3,000)		6/9/2015
Oahu DIT (1) - APCO		3,000				3,000	(3,000)		6/9/2015
HPD (2+1 Board member) - APCO		10,500					(10,500)		7/15/2015
MPD (2) - APCO		10,300	7,240				(7,240)		7/15/2015
KPD (2) - APCO			7,240		7,000		(7,000)		7/15/2015
HawPD (2) - APCO	7,000				7,000		(7,000)		7/15/2015
HawPD (2) - APCO (retracted)	(7,000)						7,000		7/15/2015
HFD (1) - APCO	(1)000)	3,000					(3,000)		7/15/2015
HawPD Imagery Adjustment	(300,000)	3,000					(0,000)	(300,000)	
MPD (1) - NENA Development Conf -Oct4-8	(,,		2,830				(2,830)	(,,	8/13/2015
Board member (1) - APCO New Emerging Tech			,			2,500	(2,500)		9/10/2015
MPD - PowerPhone EMD digital S/W			3,115				, , ,	3,115	10/8/2015
HFD (2)TriCon2016 Conference, San Diego, Feb28 to March 2, 2016		6,000					(6,000)		11/12/2015
EMS (2)TriCon2016 Conference, San Diego, Feb28 to March 2, 2016		6,000					(6,000)		11/12/2015
Boardmembers (3) 911 GTW Conf., Feb 21-24, 2016						9,500	(9,500)		11/12/2015
HFD (1) 911 GTW Conf., Feb 21-24, 2016		3,000					(3,000)		11/12/2015
HiPD(2) 911 GTW Conf., Feb 21-24, 2016	7,000						(7,000)		11/12/2015
HPD (3) 911 GTW Conf., Feb 21-24, 2016		10,500					(10,500)		11/12/2015
HawTelcom (1) 911 GTW Conf., Feb 21-24, 2016						3,000	(3,000)		11/12/2015
KPD (3) - APCO Western Regional Conf., March 3-10-2016					8,700		(8,700)		11/12/2015
Admin- Office Supplies						1,000		1,000	11/12/2015
MPD (3) 911 GTW, Feb 21-24, 2016			10,500				(10,500)		11/12/2015
Board member - IWCE Conference, Las Vegas, NV; March 21-25,2016.						2,500	(2,500)		12/10/2015
MPD (6)2016 HeXagon (Intergraph) Conference, Anaheim, June 13-17. 2016			18,875				(18,875)		1/12/2016
IWCE (1) - March 21-25,2016						2,500	(2,500)		2/11/2016
IWCE (1) - March 21-25,2017 (R. Freitas)						(2,500)	2,500		
HPD (2) - Smart911 Summit and Training; Boston, MA, May 9-12, 2016		5,200					-		2/11/2016
Exec Dir (1) - NENA/NASNA Conference 6/10/2016						(3,300)	(3,300)		3/10/2016
HPD (2) - NENA Conference 6/11/16 - 6/16/2016		7,000					(7,000)		3/10/2016
MPD (2) - NENA Conference 6/11/2016 - 6/16/2016			7,000				(7,000)		3/10/2016
KPD (3) - NENA Conference 6/11/2016 - 6/16/2016					10,500		(10,500)		3/10/2016
HiPD (2) - NENA Conference 6/11/2016-6/16/2016	7,000						(7,000)		3/10/2016
						(25,000)		(25,000)	
ADMIN - Spiegel & McDiarmid LLP						8,000		8,000	4/14/2016
MPD (1) Emergency Services Dispatcher CTO Training, Kauai, May 16-20,2016			970				(970)	-	5/12/2016
KPD - CAD Upgrade (added Sales Tax)					47,500			47,500	5/12/2016
								-	
Totals	706,547	2,631,529	997,403	65,335	3,139,429	1,110,550	80,585	8,732,778	

ENCUMBRANCES							FY 2015	PAYDOWN	May.31.2016
FY 2011 Encumbrances:	Oahu	Maui	Molokai	Kauai	Hawaii	Admin	Total		
CAD Upgrade:				419,000			419,000	(303,352)	115,647.66
FY 2012 Encumbrances:							-		
CAD Upgrades:									
EMS/FIRE	56,040						56,040	(56,040)	
HPD	695,392						695,392	-	695,392.00
Total FY 2012 Encumbrances	751,432	-		-	-	-	751,432	(56,040)	639,351.73
FY 2014 Accruals									
CAD Upgrade					1,500,000		1,500,000	(397,056)	1,102,944.00
AG Legal Expenses for IRC						21,605	21,605	(4,899)	16,705.52
Total FY 2014 Encumbrances	-	-	-	-	1,500,000	21,605	1,521,605	(401,955)	1,119,649.52
FY 2015 Encumbrances									
CAD Upgrade					2,300,000		2,300,000		2,300,000.00
HPD Smart911 S/W	76,400						76,400	(51,761)	24,639.07
Imagery License					926,400		926,400	(922,017)	4,383.32
Kauai ADC				307,000			307,000	(306,900)	99.56
							-	-	-
Board Travel						6,000	6,000	(6,000)	-
NENA	9,999	10,500		9,900	10,500	4,086	44,985	(44,985)	-
NASNA						650	650	(650)	-
911 Goes to WA		7,000					7,000	(7,000)	-
HxGN Live Hexagon Conf		6,600					6,600	(6,600)	-
WSP Cost Recovery - SprintNextel						35,000	35,000	(35,000)	-
MSAG	46,614	37,590		73,291	39,885		197,380	(197,380)	-
CAD Maint					66,307		66,307	(66,307)	-
HT Telcom Trunk		23,207		27,849	51,057		102,113	(102,113)	-
HPD CML Viper-Kapolei/Alapai	41,650						41,650	(41,650)	-
CML Viper (OSL)	2,973						2,973	(2,973)	-
Imagery Lic Agree		387,892					387,892	(387,892)	-
Office Supplies						110	110	(110)	-
RCUH Contract						14,570	14,570	(14,570)	-
HT Long Distance		139	35	145	60		379	(379)	-
Microwave Antenna Lease	7,200						7,200	(7,200)	-
							-		-
Total Encumbrances/Accruals	184,836	472,928	35	418,185	3,394,209	60,416	4,530,609	(2,201,487)	2,329,121.95
	•								
FY2016 Encumbrance				2,300,000			2,300,000		2,300,000.00
Total	936,268	472,928	35	3,137,185	4,894,209	82,021	9,522,646	(2,962,835)	6,503,770.86

		Hawaii P	
FISCAL-YTD MAY 2016 (11 mos.)	11 mos.	Budget	\$ Over/(UNDE
al RECEPTS	_	_	_
BURSEM ENTS:			
6200 New&Emerg. Tech Train.			
6201 911 Goes to WashDC	7,018	7,000	
6203 APCO New Tech Conference	_	-	_
6204 APCO Conference	_	-	_
6210 IWCE	_	-	-
6212 NASNA Conference	_	-	_
6214 Nena Conference	(2,588)	7,000	(9,5
6215 NENA Tech Dev. Conf	_	-	_
6216 Sm art911	_	-	-
6222 TriTech CAD Users			
6222.01 EMS Users	_	-	_
6222.02 HFD Users	_	-	_
Total 6222 TriTech CAD Users	_	-	_
6228 HxGN Live Hexagon Conf	_	-	-
6230 Other Training			
6230.01 HPD (O/T)	_	-	_
Total 6230 Other Training	_	-	_
6200 New & Emerg. Tech Train Other	_		_
Total 6200 New & Emerg. Tech Train.	4,431	14,000	(9,5
6300 Non-RECURRING			
6301 CAD Replac/Upgrade			
6301.05 Kauai Police Dept	_	-	-
6301.06 Maui PD	_	-	-
6301.07 So. Maui Buildout	_	-	-
6301.08 CAD Related Expenses	_	-	
Total 6301 CAD Replac/Upgrade	_	-	
6303 Computers			
6303.13 UPS Battery-HPD	_	-	-
6303.23 HPD SMART911 S/W	_	-	-
6303.24 PRI Install	-	-	-
6303.25 Workstation	_	-	
Total 6303 Computers		-	
Total 6300 Non-RECURRING	_	_	
6400 RECURRING EXPENSES			
6402 MAINTENANCE			
6402.02 Imagery Lic Agree 6402.05 Logging RecordMaint	_	-	_
6402.07 0011 9-1-1MSAG Maint.	206.738	307,647	(100,9
6402.08 CAD Maintenance	98,084	68,752	29,33
6402.13 Software Maintenance			
6402.131 Integraph DB S/W Maint	_	4,604	(4,6
Total 6402.13 Software Maintenance	-	4,604	(4,60
Total 6402 MAINTENANCE	304,822	381,003	(76,1
6403 Other RECURRING			
6403.01 Telcom Charges 6403.0101 Alt. PSAP 9-1-1 Del			
6403.0102 Long Distance	285	1,200	(9:
6403.0109 Telcom Trunk	255,287	306,344	(51,0
6403.0111 WiringAltDispatch	_	-	_
6403.0112 HPD CML Viper-Kapolei	-	-	_
6403.0113 HPDCMLViper-Alapai	-	-	_
6403.0114 SD Viper (OSL) (3)	-	-	
6403.0115 Text-to-911 Service 6403.0116 Alt PSAP Call Route	-	4,000	(4,0
6403.0116 Alt PSAP Call Route 6403.0117 Telecom Chgs-Other		_	_
KPD CML Viper	_	_	
Total 6403.01 Telcom Charges	255,572	311,544	(55,9
6403.02 EMS Tower Lease	-	-	_
Total 6403 Other RECURRING	255,572	311,544	(55,9
Total 6400 RECURRING EXPENSES	560,393	692,547	(132,15
. J. G. JOO DECONDING EXPENSES	564,824	706,547	(132,

		Kauai PS <i>A</i>	<u>AP</u>		
FISCAL-YTD MAY 2016 (11 mos.)	11 mos.	ANNUAL Budget	\$ Over/(UNDER) Budget		
otal RECEIPTS	-	=			
ISBURSEMENTS:					
6200 New & Emerg. Tech Train.					
6201 911 Goes to WashDC	_	-			
6203 APCO New Tech Conference	_	8,700	(8,700)		
6204 APCO Conference	_	10,500	(10,500)		
6210 IWCE 6212 NASNA Conference	_		-		
6212 NASNA Conference 6214 Nena Conference	2.090	10,500			
6215 NENA Tech Dev. Conf	2,090	- 10,500	(8,410)		
6216 Smart911	_	<u>=</u>			
6222 TriTech CAD Users	_				
6222.01 EMS Users	_	_	_		
6222.01 EWS OSETS 6222.02 HFD Users	_	<u>_</u>	-		
Total 6222 TriTech CAD Users	_	_	_		
6228 HxGN Live Hexagon Conf	_	_	_		
6230 Other Training					
6230.01 HPD (O/T)	_	_	_		
Total 6230 Other Training	_	_	_		
6200 New & Emerg. Tech Train Other	_	_	_		
Total 6200 New & Emerg. Tech Train.	2,090	29,700	(27,610)		
6300 Non-RECURRING					
6301 CAD Replac/Upgrade					
6301.05 Kauai Police Dept	2,300,000	2,300,000	_		
6301.06 Maui PD	_	_	_		
6301.07 So. Maui Buildout	_	_	_		
6301.08 CAD Related Expenses	_	_	_		
Total 6301 CAD Replac/Upgrade	2,300,000	2,300,000			
6303 Computers					
6303.13 UPS Battery-HPD	_		_		
6303.23 HPD SM ART911 S/W	_	_	_		
6303.24 PRI Install	_	10,000	(10,000)		
6303.25 Workstation	_				
Total 6303 Computers	_	10,000	(10,000)		
Total 6300 Non-RECURRING	2,300,000	2,310,000	(10,000)		
6400 RECURRING EXPENSES					
6402 MAINTENANCE					
6402.02 Imagery Lic Agree	_	197,015	(197,015)		
6402.05 Logging RecordMaint 6402.07 0011 9-1-1MSAG Maint.	33.349	204.700	(171,351)		
6402.08 CAD Maintenance	-		_		
6402.13 Software Maintenance					
6402.131 Integraph DB S/W Maint	-	_	_		
Total 6402.13 Software Maintenance	-	<u>-</u>	_		
Total 6402 MAINTENANCE	33,349	401,715	(368,366)		
6403 Other RECURRING 6403.01 Telcom Charges					
6403.0101 Alt. PSAP 9-1-1 Del	6,316	_	6,316		
6403.0102 Long Distance	84	480	(396)		
6403.0109 Telcom Trunk	83,549	111,398	(27,849)		
6403.0111 WiringAltDispatch	673	237,736	(237,063		
6403.0112 HPD CML Viper-Kapolei			_		
6403.0113 HPDCMLViper-Alapai 6403.0114 SD Viper (OSL) (3)			-		
6403.0115 Text-to-911 Service	_	4,100	(4,100		
6403.0116 Alt PSAP Call Route	_	300	(300		
6403.0117 Telecom Chgs-Other	171	-	171		
KPD CML Viper	81,108	=	81,108		
Total 6403.01 Telcom Charges	171,900	354,014	(182,114		
6403.02 EMS Tower Lease	-		- (400 444		
Total 6403 Other RECURRING Total 6400 RECURRING EXPENSES	171,900 205,249	354,014 755,729	(182,114 (550,480		
otal DISBURSEMENTS	2,507,339	3,095,429	(550,480		

	Maui PSAP		
FISCAL-YTD MAY 2016 (11 mos.)	11 mos.	ANNUAL Budget	\$ Over/(UNDER Budget
otal RECEIPTS	_	-	_
SBURSEM ENTS:			
6200 New & Emerg. Tech Train.			
6201 911 Goes to WashDC	8,399	10,500	(2,101
6203 APCO New Tech Conference	_	-	_
6204 APCO Conference	7,238	7,240	(2
6210 IWCE 6212 NASNA Conference	_	-	_
6212 NASNA Conference 6214 Nena Conference	18	7.000	(6,98
6214 Nena Conference 6215 NENA Tech Dev. Conf	2.821	2.830	(6,98)
6216 Smart911	2,821	2,830	_
6222 TriTech CAD Users	_	_	_
6222.01 EMS Users	_	_	_
6222.01 EWS OSETS 6222.02 HFD Users		_	
Total 6222 TriTech CAD Users	_	_	_
6228 HxGN Live Hexagon Conf	(1,005)	18,875	(19,880
6230 Other Training	(1,222)	,	(12,22
6230.01 HPD (O/T)	_	_	_
Total 6230 Other Training	_	_	_
6200 New&Emerg. Tech Train Other	_	_	_
Total 6200 New & Emerg. Tech Train.	17,471	46,445	(28,974
6300 Non-RECURRING			
6301 CAD Replac/Upgrade			
6301.05 Kauai Police Dept	_	_	_
6301.06 Maui PD	_	82,000	(82,000
6301.07 So. Maui Buildout	_	200,000	(200,000
6301.08 CAD Related Expenses	_	_	_
Total 6301 CAD Replac/Upgrade	_	282,000	(282,000
6303 Computers			
6303.13 UPS Battery-HPD	-	3,115	(3,115
6303.23 HPD SMART911 S/W	-	-	-
6303.24 PRI Install	-	-	-
6303.25 Workstation	_	-	_
Total 6303 Computers		3,115	(3,114
Total 6300 Non-RECURRING	_	285,115	(285,115
6400 RECURRING EXPENSES			
6402 MAINTENANCE			
6402.02 Imagery Lic Agree 6402.05 Logging RecordMaint	0	_	•
6402.07 0011 9-1-1MSAG Maint.	- 194,591	233,393	(38,80
6402.08 CAD Maintenance	170,000	170,000	-
6402.13 Software Maintenance			
6402.131 Integraph DB S/W Maint	-	-	
Total 6402.13 Software Maintenance			
Total 6402 MAINTENANCE 6403 Other RECURRING	364,591	403,393	(38,80
6403.01 Telcom Charges			
6403.0101 Alt. PSAP 9-1-1 Del	_	_	_
6403.0102 Long Distance	113	366	(25:
6403.0109 Telcom Trunk	232,107	257,914	(25,80
6403.0111 WiringAltDispatch	_	-	-
6403.0112 HPD CML Viper-Kapolei 6403.0113 HPDCMLViper-Alapai	_	_	_
6403.0113 HPDCMLViper-Alapai 6403.0114 SD Viper (OSL) (3)	_	_	_
6403.0115 Text-to-911 Service	_	3,200	(3,20
6403.0116 Alt PSAP Call Route	_	-	
6403.0117 Telecom Chgs-Other	_	-	_
KPD CML Viper	_	-	-
Total 6403.01 Telcom Charges	232,220	261,480	(29,26
6403.02 EMS Tower Lease Total 6403 Other RECURRING	232,220	261.480	
Total 6403 Other RECURRING Total 6400 RECURRING EXPENSES	232,220 596,811	261,480 664,873	(29,26 (68,06
I CLAI 3400 RECORRING EXPENSES	596,811 614,283	996,433	(382,15

	C	Dahu PSAF	_
FISCAL-YTD MAY 2016 (11 mos.)	11 mos.	ANNUAL Budget	\$ Over/(UNDE Budget
tal RECEPTS	=	=	=
SBURSEM ENTS:			
6200 New & Emerg. Tech Train.			
6201 911 Goes to WashDC	8,202	13,500	(5,29
6203 APCO New Tech Conference	-	=	
6204 APCO Conference	13,123	13,125	•
6210 IWCE	_		
6212 NASNA Conference	_		
6214 Nena Conference	(1,070)	7,000	(8,07
6215 NENA Tech Dev. Conf	_		_
6216 Smart911	_	5,200	(5,20
6222 TriTech CAD Users			
6222.01 EMS Users	5,272	6,000 6.000	(72
6222.02 HFD Users	3,585		(2,41
Total 6222 TriTech CAD Users	8,857	12,000	(3,14
6228 HxGN Live Hexagon Conf	_	-	
6230 Other Training 6230.01 HPD (O/T)	8.897	8.900	
Total 6230 Other Training	8,897 8,897	8,900	
6200 New & Emerg. Tech Train Other			`
Total 6200 New & Emerg. Tech Train.	38.009	59,725	(21,71
6300 Non-RECURRING	38,009	39,723	(21,71
6301 CAD Replac/Upgrade			
6301 CAD Replac/Opgrade 6301.05 Kauai Police Dept		_	_
6301.05 Kattal Police Dept	_		
6301.06 Maui PD 6301.07 So. Maui Buildout	<u>-</u>		
6301.07 So. Matti Buildott 6301.08 CAD Related Expenses	3,374	<u>=</u>	3,37
Total 6301 CAD Replac/Upgrade	3,374	_	3,37
6303 Computers	3,374		0,02
6303.13 UPS Battery-HPD	_	_	_
6303.23 HPD SMART911 S/W	_	62.400	(62,40
6303.24 PRI Install	_	-	(02,30
6303.25 Workstation	_	65.000	(65,00
Total 6303 Computers	_	127,400	(127,40
Total 6300 Non-RECURRING	3,374	127,400	(124,02
6400 RECURRING EXPENSES			
6402 MAINTENANCE			
6402.02 Imagery Lic Agree	_	250,000	(250,00
6402.05 Logging RecordMaint	60,775	60,775	` -
6402.07 0011 9-1-1MSAG Maint.	481,365	577,638	(96,27
6402.08 CAD Maintenance	173,021	400,000	(226,97
6402.13 Software Maintenance			
6402.131 Integraph DB S/W Maint Total 6402.13 Software Maintenance	-		
Total 6402.13 Software Maintenance Total 6402 MAINTENANCE	- 715,160	1,288,413	(573,25
6403 Other RECURRING		.,,	(, ,
6403.01 Telcom Charges			
6403.0101 Alt. PSAP 9-1-1 Del	_	_	_
6403.0102 Long Distance	_		_
6403.0109 Telcom Trunk	867,975	947,000	(79,02
6403.0111 WiringAltDispatch 6403.0112 HPD CML Viper-Kapolei	80.680	140.916	(60,23
6403.0112 HPD CML Viper-Kapolei	6.873	140,916	6,87
6403.0114 SD Viper (OSL) (3)	33,879	54,000	(20,12
6403.0115 Text-to-911 Service	_	12,000	(12,00
6403.0116 Alt PSAP Call Route	_	_	
6403.0117 Telecom Chgs-Other	-	_	
KPD CML Viper	-	=	
Total 6403.01 Telcom Charges	989,406	1,153,916	(164,51
6403.02 EMS Tower Lease	7,200	7,600	(40
Total 6403 Other RECURRING Total 6400 RECURRING EXPENSES	996,606 1,711,767	1,161,516 2,449,929	(164,91 (738,16
I OLAI 9400 RECORRING EXPENSES	1,/11,/67	2,449,929	(738,16

	ADMIN		
FISCAL-YTD MAY 2016 (11 mos.)	11 mos.	ANNUAL Budget	\$ Over/(UNDER) Budget
Total RECEIPTS	8,815,081	9,255,000	(439,919)
DISBURSEM ENTS:			
6200 New & Emerg. Tech Train.			
6201 911 Goes to WashDC	17,287	15,500	1,787
6203 APCO New Tech Conference	2,207	2,500	(293)
6204 APCO Conference	7,243	4,195	3,048
6210 IWCE	2,162	2,500	(338)
6212 NASNA Conference	2,148	2,150	(2)
6214 Nena Conference	2,348	3,300	(952)
6215 NENA Tech Dev. Conf	2,0-10	0,000	(332)
	_	_	_
6216 Smart911	-	-	-
6222 TriTech CAD Users			
6222.01 EMS Users 6222.02 HFD Users	_	_	-
			_
Total 6222 TriTech CAD Users 6228 HxGN Live Hexagon Conf			_
6230 Other Training	_	_	_
6230.01 HPD (O/T)		_	_
Total 6230 Other Training			_
		70,135	(70.135)
	33,395		(70,135)
Total 6200 New & Emerg. Tech Train. 6400 RECURRING EXPENSES	33,395	100,280	(66,885)
6401 ADMINISTRATION			
6401.01 Exec Dir. Services	121,331	198,000	(76,669)
6401.02 ElectronSignatur	240	250	(10)
6401.05 Audit Expense	13,000	13,025	(25)
6401.06 Bank Charge	13,000	50	(50)
6401.08 Board Member Travel	27,405	25,000	2,405
6401.09 DB&F Assessments			_,
6401.0101 DB&F Admin. Assess	45,578	155,000	(109,422)
6401.0102 DB&F Rev Assessment	319,652	462,625	(142,973)
Total 6401.09 DB&F Assessments	365,230	617,625	(252,395)
6401.11 Miscellaneous Expense	(0)	_	(0)
6401.12 NASNA Dues	650	150	500
6401.13 Parking Permits	400	400	_
6401.15 WSP Cost Recovery			
6401.0101 Sprint/Nextel	4,253	-	4,253
6401.15 WSP Cost Recovery - Other	39,120	70,000	(30,880)
Total 6401.15 WSP Cost Recovery	43,372	70,000	(26,628)
6401.17 ADA Compliance	_	200	(200)
6401.18 AG Legal Fees	-	25,000	(25,000)
6401.19 Public Education	8,721	30,000	(21,279)
6401.20 RCUH Contract	(5,881)	-	(5,881)
6402.21 Cell Phone Charges	1,098	-	1,098
6402.22 Office Supplies	4,660	5,000	(340)
6402.23 NG911 Transition Plan	-	145,000	(145,000)
Total 6401 ADMINISTRATION	580,225	1,129,700	(549,475)
Total 6403 Other RECURRING	-	-	-
Total 6400 RECURRING EXPENSES	580,225	1,129,700	(549,475)
Total DISBURSEMENTS	613,620	1,229,980	(616,360)

Checks that were paid with only one signatory

Month	Check #	PAYEE	Amount	Reason	
Jan-16	2203	Director of Finance, State of Hawaii	\$ 925.55	pCard expenditure for office supplies	
Jan-16	2215	Director of Finance, State of Hawaii	\$ 7,291.52	Payroll	
Feb-16	2221	Director of Finance, State of Hawaii	\$ 6,979.30	Payroll	
Feb-16	2226	Director of Finance, State of Hawaii	\$ 293.77	pCard expenditure for office supplies	
Feb-16	2230	Director of Finance, State of Hawaii	\$ 7,068.63	Payroll	
Mar-16	2243	Director of Finance, State of Hawaii	\$ 7,098.52	Payroll	
Mar-16	2245	Director of Finance, State of Hawaii	\$ 583.88	pCard expenditure for office supplies	
Mar-16	2255	Director of Finance, State of Hawaii	\$ 7,394.14	Payroll	
Apr-16	2270	Director of Finance, State of Hawaii	\$ 283.36	pCard expenditure for office supplies	
Apr-16	2273	Director of Finance, State of Hawaii	\$ 7,585.52	Payroll	
May-16	2287	Director of Finance, State of Hawaii	\$ 7,394.14	Payroll	
May-16	2302	Director of Finance, State of Hawaii	\$ 7,394.14	Payroll	
May-16	2289	Director of Finance, State of Hawaii	\$ 204.74	pCard expenditure for office supplies	
Total			\$60,497.21		