

STATE OF HAWAII

Communications, Technical and Finance Meeting
(Combined Meeting)
Kalanimoku Bldg., Room 322B
1151 Punchbowl St., Honolulu
Wednesday, December 14, 2016
10:00 am – 1:00 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. 2017 Legislative Investigative Committee update – Paul Ferreira
 - ii. Others
 - b. Technical Committee – Thalia Burns
 - i. Investigative Regulatory Committee update – Davlynn Racadio
 - ii. Educational Investigative Committee update- Jeffrey Riewer
 - iii. FCC update – Courtney Tagupa
 - iv. Text-to-911 update – Courtney Tagupa
 - v. Smart911 update – Maj. Nagata.
 - vi. Request for Approval:
 1. MPD – PowerOps system for Wailuku PSAP and Kihei Secondary PSAP sites - \$37,500.
 - vii. MPD: Pictometry requests Contract Close out without completing terms of the contract.
 - viii. Others.
 - c. Finance Committee – Kiman Wong
 - i. Review of Monthly Cash Flow & Budget Financial Reports.
 - ii. Request approval to refund \$23,270 to HawTelcom for assessing the State of Hawaii e911 surcharge fees, in error, for VoIP phone usage that was remitted to the E911 Fund (This decision was deferred from last month).

- iii. Request for funding:
 - 1. MPD – PowerOps system for Wailuku PSAP and Kihei Secondary PSAP sites - \$37,500.
- iv. Others.

VI. PSAP Status Updates

- a. Kauai – Michael Contrades
- b. Oahu HPD – Allan Nagata
- c. Oahu HFD – Gary Lum
- d. Molokai – Dean Rickard
- e. Maui – John Jakubczak
- f. Hawaii – Paul Ferreira

VII. Items for Discussion, Consideration and Action

- a. 911 Timeline update.
- b. Others.

VIII. Announcements

- a. Future Meeting dates (10:00am – 12:00noon):
 - i. Thursday, January 12, 2017 (Combined meeting)
 - ii. Thursday, February 9, 2017 (Combined meeting)
 - iii. Thursday, March 9, 2017 (Combined meeting)
- b. Future Conference Dates (**3 months advanced approval required**):
 - i. NENA Conference, June 3 – 8, 2017, San Antonio, TX.
 - ii. APCO Conference, August 13-16, 2017, Denver, CO.
- c. FirstNet Update – Victoria Garcia
- d. Others

IX. Open Forum: Public comment on issues not on the agenda for consideration for Committee meeting agenda at the next meeting.

X. Adjournment



STATE OF HAWAII

**Communications, Technical and Finance Meeting
(Combined Meeting)
Kalanimoku Bldg., Room 322B
1151 Punchbowl St., Honolulu
Thursday, December 10, 2015
10:00 am to 12:00 pm**

Communications Committee members present: Steven Schutte (Chair), Thalia Burns (HPD), Davlynn Racadio (MPD), and Paul Ferreira (HiPD).

Communications Committee members absent: Lavina Taovao (KPD).

Technical Committee members present: Thalia Burns (Chair), Clement Chan (DIT), Rob Gausepohl (KPD), John Jakubczak (MPD), Ah Lan Leong (HPD), Steven Schutte (Verizon), Eleni Papakiristis (Hawaiian Telcom), Antonio Ramirez (Akimeka), Kenison Tejada (APCO/NENA Pacific Chapter), Jeff Riewer (AT&T Mobility), and Marshall Kanehailua (HiPD).

Technical Committee members absent: Kiman Wong (Oceanic Time Warner Cable), Gary Lum (HFD) and David Miyasaki (KPD).

Finance Committee members present: Mark Begley (Kauai County), Paul Ferreira (HiPD) and Randy Macadangdang (HPD).

Finance Committee members absent: Kiman Wong (Chair), Lisa Hiraoka (Consumer Advocate designee), and Roy Irei (T-Mobile).

Staff Members Present: Courtney Tagupa (E911 Board), Stella Kam (AG) and Kerry Yoneshige (DAGS).

Guests: Victoria Garcia (DoD), Ryan Freitas (Hawaiian Telcom), Arnold Kishi (CIO designee), Alika Akiona (HFD), Travis Ing (HiPD), Diana Chun (ESD), Ben Morgan (Hawaiian Telcom), Ken Schulte (TriTech), Eric Butler (Pictometry), Allan Nagata (HPD), Wayne Hirasa (SIC), Liz Gregg (AT&T), Agnes Lee (Intrado), Dean Rickard (MPD), and Mark Wong (DIT).

Meeting Minutes

I. Call to Order, Public Notice, Quorum

- a. The Board Chair called the meeting to order at 10:03 am.
- b. Public notice was issued.
- c. Quorum was present for all committees, with the exception of the Finance Committee.

II. Public testimony on all agenda items

- a. The Board Chair asked if anyone who wishes to provide testimony on any 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 the Board Chair.

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

- a. A copy of the November 2015 meeting minutes was sent to everyone via email by the Executive Director. Ms. Thalia Burns proposed an amendment to the meeting minutes in the form of a correction to the spelling of HPD Acting Major Allan Nagata's first name. MPD A/C John Jakubczak made a motion to approve the meeting minutes including the proposed amendment made by Ms. Thalia Burns. This motion was seconded and approved by voice vote by all committee members present.

V. Committee Updates by Committee Chairs

- a. Communications Committee – Steven Schutte
 - i. Presentations from APCO Emerging Tech Forum and NENA Development Conference and Critical Issues Forum.
 - 1. Committee Chair Steven Schutte thanked the Board and Joint Committees for supporting him in attending the APCO forum. He will send information regarding notes on the different presentations to the Executive Director to disseminate to the Board. The group consisted of approximately 150 to 180 individuals. This particular conference was smaller than the regular APCO/NENA events but many similar things. In larger states with larger PSAPs, the discussions are not as minute and discretionary as here in Hawaii. There is an understanding and recognition in the community of how far along Hawaii is with the deployment of Text-to-911, with PSAPs overall and 911 in general. The biggest thing to come out the conference was that technology is not the issue. There exists enough technology, but the issues that arise are down to applications integrating with RMS and PSAPs. The main issue is the policies that are written in place. Although applications can provide multi-level location information with additional details text and video coming in to the PSAP, the issue is who is going to interpret that info at the PSAP in a three to four minute time frame. FCC Commissioner Jessica Rosenworcel who has been renominated by President Obama and served under former Senator Daniel Inouye was present advocating for the PSAPs and making sure technology is incorporated, but at the same time she acknowledged the challenges that technology has in public safety and the decisions that public safety has to make in ensuring that the customers and constituents are being

served properly. During the 911 visit last year, it was also nice to meet with FCC Chairman Tom Wheeler. It is imperative to make sure that Hawaii consistently keeps in touch and stays in front of the FCC, especially because Hawaii is prominent in sense that we have Text-to-911 ready to deploy. This conference is offered twice a year, one on west coast and one in east coast. This year, it will be held in Seattle in the Spring and Missouri in the Fall. Committee Chair Schutte recommends strongly that a board member attends this conference during the year and delivers a report during board meetings. Communications Chair Schutte would like to start providing reports on conferences attended during the monthly meetings, as he saw great value in the Executive Director's report from his leadership meeting.

2. Ms. Davlynn Racadio had the opportunity to attend the annual NENA Developmental Conference (NDC) and provided a summary of her experience. The conference lasted for five days from 9:00 am to 5:00 pm and consisted of an array of classes. The first three and a half days were dedicated to protocols and standards NENA is trying to develop. The classes were interactive in soliciting feedback from the participants regarding what works and what does not work for their PSAP. Ms. Racadio mentioned she particularly enjoyed and "majored" in classes on text messaging, locations, accuracy, and classes pertaining to PSAP issues. She "minored" in classes in locations focusing on GIS mapping. She stated that the NDC was also a very small conference with approximately 150 attendees. Input is valued and individuals take notes and ask attendees to participate in conference calls. The main issue presented at this conference was class of service for text messages. She stated we are not the only people experiencing class of service issues, there are issues nationwide, but Hawaii differs because of our geographical location. Ms. Racadio felt it beneficial to attend the NDC and recommends that we continue to send our members and fully maximize our NENA membership.

- ii. Legislative Investigative Committee update- Paul Ferreira

1. Committee Chair Paul Ferreira stated that we are still waiting on approval from Governor Ige's office to have the prepaid legislation bill move forward and included in his administration package. The Executive Director met with CTIA and had a conversation about potential issues, but he believes they are minor and can be easily resolved.

- b. Technical Committee – Thalia Burns

- i. Investigative Regulatory Committee update – Marshall Kanehailua

1. There were no updates at this time, but Mr. Kanehailua announced he would like to hold a meeting with the

Investigative Regulatory Committee to discuss the direction of the committee. He also expressed that there may be a need to seek advice from Ms. Stella Kam of the Office of the Attorney General regarding this issue and will likely have an update during the January committee meeting.

ii. FCC update

1. The Executive Director announced there were no FCC updates at this time.

iii. Text-to-911 update

1. Ms. Thalia Burns – Committee Chair Thalia Burns provided an update on Text-to-911. The Text-to-911 Committee did an outstanding job developing the flyers and frequently asked questions (FAQ). The Text-to-911 flyers went to print and the final product was delivered at the board meeting for the board members to take back to their agencies. On both the flyer and FAQ, they point the public to the Text-to-911 website (hawaiitextto911.com) via the DAGS Enhanced 911 Board website. Ms. Burns extended thanks to the Executive Director and his webmaster who have done an excellent job on the website. The website will be utilized to continually provide additional information to the public. There have been some discussions on doing a soft launch before going live, and the next action item will be to discuss a soft launch date for Text-to-911 at the December 16, 2015 meeting. Committee Chair Burns then turned the meeting over to A/C John Jakubczak from MPD. He stated Ms. Davlynn Racadio brought up the class of service issue. He asked if we proceed with the soft launch and text comes in from a location in the ocean, the issue is if the PSAP is able to provide service to the person. He stated Maui only received their agreement for Text-to-911 yesterday and it must go to corporate counsel to have it reviewed before any agreement can be entered into for the soft launch. Hawaiian Telcom held meetings with Tony Ramirez from Akimeka who did an excellent job briefing HT on class of service issues because they admit they do not have all the answers and need to understand where things are going because the standards are still being developed as we go. After the meeting, HT now understands what the issues are. Mr. Ryan Freitas and Mr. Ben Morgan from HT met with Intrado and their two Vice Presidents there, Tim and Eric, who have been on-island before and agree that class of service is something that we need to address in order to improve location information on text calls. They spoke with their location information expert, Mr. John Snap, and believe Mr. Tony Ramirez's information has pushed this through as a requirement for text nationwide. Intrado stated that the whole country was

behind on acknowledging that class of service is a requirement for text calls. Intrado has agreed with HT that this needs to be developed and in the system. HT communicated with Intrado this week and they do not have a timeline right now, but are committed to getting a timeline by the next board meeting. Mr. Ben Morgan mentioned HT's understanding is that the location information they are getting on text today is better than or equal to all of the other agencies that have launched Text-to-911 nationwide. From HT's perspective, they feel comfortable with a soft launch with the level of service that is being provided regarding location information, but they understand it is not their decision and is ultimately up to the PSAPs on when to launch. Mr. Tony Ramirez stated that he went through and provided a presentation to all of the PSAPs and to Mr. John Snap and senior management of Intrado and it was a positive exchange of information. Mr. Snap did indicate that class of service is something that Hawaii is on the leading edge and is the first state to bring up the class of service issue as a recommendation to make the system better. He echoed Mr. Ben Morgan sentiments that Hawaii is on the leading edge of location information. The PSAPs on Text-to-911 now are getting an incoming device location that transmitted from the PDE (the wireless equivalent) location system. The future enhancements of the system are location based technology or location based systems, which will provide more accurate location info. The device location information that is being provided right now is most likely more accurate than what they are getting on the mainland and enhancements continue to be made. The latest BETA standard that came out in May 2015 that provided introduction to MMS and that is a restricted standard for MMS to the message only. No audio video pictures and he thinks that is why some emoji testing was being done. Mr. Ramirez's assessment of Intrado meeting and training is that they are on the right track and we will make it work. They have agreed to exchange data regarding mapping systems and boundaries to make it more accurate. Presently, boundaries are associated with landmark areas of islands, but they will move those boundaries out so that they can capture any text that comes from a centroid located in the ocean. Mr. Ramirez is waiting for Mr. Snap to get back to him regarding exchange of information. Mr. Kenison Tejada stated he has pressed Mr. Roger Hixon on the class of service issue. Mr. Hixon confirmed during the meeting that they were doing class of service but when Mr. Tejada pressed him as to where, he could not say, so Mr. Tejada is not sure they are really doing this. Ms. Davlynn Racadio and Mr. Tony Ramirez are on the class of service committee and

knows they are definitely working on it. MPD A/C John Jakubczak asked how long the soft launch period will be before going live and should we wait until class of service has been developed? Ms. Thalia Burns stated she does know that we should hold off going live at some point, as we owe this to the disability community to go live and give them an equal chance to reach 911. HPD has tested Text-to-911 and their staff has been trained and the policies and procedures are in place. Going live is only a matter of flipping a switch. Acting Major Allan Nagata stated HPD has MOP's in place and are comfortable with what Mr. Ramirez and Mr. Morgan have said about the location information. He clarified that by initiating a soft launch, we are not publicly announcing we are live and that HPD will be on standby and any texts that come in during this period will be processed. A/C Jakubczak asked if the PSAPs should hold off on displaying the Text-to-911 until the official launch. Ms. Thalia Burns stated the posters were printed purposely with no date in order to not give public false hope. Mr. Mark Begley stated he understands the plan was for all PSAPs to go live at same time, but if the PSAPs are not comfortable they should not be forced to launch early, but said if a large jurisdiction like Honolulu is ready, then he understands the need to not hold off in case someone can utilize it during a potential life-threatening situation. Acting Major Allan Nagata stated not everyone has signed up for Smart 911, but Text-to-911 is available for everyone who has a text-enabled phone. He confirmed HPD is ready for a soft launch and Ms. Thalia Burns announced the next action item will be to discuss a soft launch date for Text-to-911 at the December 16, 2015 meeting.

iv. Request approval-

1. 9-1-1 Goes to Wash.DC. Conference, February 21-24, 2016. Board member (1) – \$3,000.

MPD A/C John Jakubczak motioned to approve one board member to attend the 9-1-1 Goes to Washington D.C. conference at a cost of \$3,000 subject to final approval by the Board. The motion was seconded and approved by voice vote by all technical committee members present.

2. IWCE Conference in Las Vegas, NV, March 21-25, 2016. Board member (1) - \$2,500.

- a. MPD A/C John Jakubczak motioned to approve one board member to attend the IWCE Conference in Las Vegas at a cost of \$2,500 subject to final approval by

the Board. The motion was seconded and approved by voice vote by all technical committee members present.

3. Oahu PSAP –for Pictometry licensing agreement for FY2021 -\$208,600.

- a. Per the Executive Director, the amount approved in strategic budget plan (attached sheet) and the strategic budget plan only goes to FY 2020, so FY 2021 has not been approved. The Board has already approved \$1.3M, so there is need to have the remaining \$208,600 approved for FY 2021 for this six year contract. Mr. Tony Ramirez asked if this amount was factored into the request to increase the ceiling in FY 2017. The Executive Director responded that this amount has indeed been factored in to the ceiling increase for FY2017.
- b. MPD A/C John Jakubczak motioned to approve the additional DIT request of \$208,600 subject to final approval by the Board. The motion was seconded and approved by voice vote by all technical committee members present.

v. Others

1. **Ms. Thalia Burns** – Ms. Burns had an announcement that she would like to share with all of the counties. HPD came across a situation earlier in the week in which a registered owner (R.O.) of a vehicle wanted to report his vehicle stolen. The R.O. had a special license plate that spelled HOMIE. The paperwork showed HOMIE, but the physical plate issued by Motor Vehicle reflected a zero “0” in place of the letter “O”. The R.O.’s paperwork and everything in the Motor Vehicle files show the license plate as HOMIE, spelled using the letter O. The Department of Motor Vehicles was contacted and is in the process of performing corrections to make sure that their files, registration paperwork and physical plate all match. Until this situation is corrected, in the interim, counties may need to run inquiries using the letter “O” and the number zero “0”. For HPD, this situation presented an officer safety issue. If the officer ran the license plate only containing the number 0 (zero) spelled HOMIE, there would be no hit on the vehicle that it was reported stolen. If the officer then approached the vehicle, the officer would unknowingly be in a position of engaging suspects in the midst of an auto theft. HPD would like to alert all counties in the interim to run plates with both the letter O and the number 0 (zero) for safety.
2. **Mr. Tony Ramirez** – Mr. Tony Ramirez provided an announcement for the PSAPs that the 1st Q of 2016 (Jan-

Mar) Verizon will be conducting statewide testing of all LTE towers. Verizon coordinate with the PSAPs to set up a schedule and draft plans in order to ensure this testing is completed. This is a statewide effort and there are a large amount of sectors. It will most likely take the full three months for completion.

c. Finance Committee – Kiman Wong

1. Quorum was not present for the Finance Committee, so the items that were approved from the Communications and Technical Committees will be referred to the full Board for final approval.
- ii. Review of Monthly Cash Flow & Budget Financial Reports.
 1. The Executive Director emailed Monthly Cash Flow and Budget Financial reports to everyone prior to the meeting for review. At this time, since quorum is not present, this item will be reviewed during the Board meeting.
- iii. Request Funding:
 1. 9-1-1 Goes to Wash.DC. Conference, February 21-24, 2016.
 - a. Board members (1) – \$3,000.
 2. IWCE Conference in Las Vegas, NV, March 21-25, 2016.
 - a. Board member (1) - \$2,500.
 3. Oahu PSAP – funding for Pictometry licensing agreement for FY 2021 - \$208,600.

Quorum was not present for the Finance Committee, so these three items that were moved to the full Board for final approval.

iv. Others.

1. None

VI. PSAP Status Updates

a. Kauai – Mark Begley

- i. KPD A/C Rob Gausepohl provided an update from the Kauai PSAP. They had an issue regarding their contract. They had a bit of contract negotiation back in May 2015, but they never received the contract back until last week. The revised contract is presently with KPD's county attorney. A/C Gausepohl stated that there is no mention of any kind of upgrades in the contract. He posed the question if any class of service upgrades are made, would this affect the contract pricing? Ms. Eleni Papakiristis from Hawaiian Telcom responded that class of service upgrades would not affect pricing. A/C Gausepohl stated they are also still working on a non-disclosure agreement for Akimeka.

b. Oahu – Allan Nagata

- i. Recruiting update - Honolulu Police Department Acting Major Allan Nagata provided a status update on the 911 dispatcher recruiting efforts. From the period of November 1-19, 2015 they received 543 applications for the position. January 23, 2016 is the 911 police radio dispatcher civil service test and the hope is that all applicants take the test. He would like to congratulate Ms. Thalia Burns on her fantastic marketing efforts to generate interest in the position vacancy and encouraging individuals to apply.
- ii. Smart 911 update – approximately 2,100 registered accounts times three to four phones under each registered account, so this equates to approximately 10,000 registered phones in the state. This is a good number, considering the three month launch.
- iii. Honolulu Hale Christmas Display – A PowerPoint slide show was presented by Acting Major Nagata to everyone in attendance. HPD was assigned the 2015 Christmas display for Honolulu Hale and the personnel were supplied from the communications division. At the end of July, they went to the display coordinator's meeting and they had to select their space for their tree display. They were selected as number 22 out of 24 slots, which was second to last. The display location fronts South King Street, at the beginning of Honolulu Hale. The theme of this year's contest was choo choo trains. In 2014, the theme was How the Grinch Stole Christmas. This year, after solicitation from all the watches, they decided to go with a superhero theme. Recyclable materials were used to create ornaments. The dispatchers also used soft drink tabs and hot glue and placed soft drink tabs on to the ornaments. Approximately 110-140 soft drink tabs were used per ornament. This shows creativity and ingenuity on the employees' part. Dispatchers put the tabs on the ornaments during their down time. They also made something for the keiki who visited the display. They printed several hundred superhero masks and taped them on chopsticks so when the keiki came to the display, they received one mask per child. The soda cans that remained after the tabs were taken off were cut open and had stars drawn on them and were cut and folded to hang on the tree. The leftovers of the comic books were folded into ninja stars and used as additional ornaments. Life-size superheroes of The Hulk and Spider-Man were created using paper mache, chicken wire, newspapers, flour, and white paper and mounted to plywood board for stability. Spider-Man was mounted on the top of display train caboose to guard the presents and The Hulk is on the inside. The Hulk figure stands at approximately 6'5". Three lead police dispatchers helped set up the entire display. HPD Chief of Police hung the ceremonial ornament with the recycled materials. At the tree display ceremony, their display did not receive any awards, but it was nice to build the display for Honolulu Hale and the public. Several displays contained minion characters. Best in show was awarded to the Department of

Design and Construction, who had a Thomas the Train display. Acting Major Nagata had the opportunity to return to the display over the weekend and met a family of six from Canada who really appreciated the HPD display because it was unique and interactive in that they could take photos. They also appreciated that they received something from the display (the superhero mask) which was something many displays did not provide. Acting Major Nagata extended thanks to all of the employees who worked so very hard on this year's display.

c. Molokai – Dean Rickard

Maui Police Department Deputy Chief Dean Rickard made an announcement that he just received their service agreement contract today and he will be forwarding the contract to co-counsel.

d. Maui – John Jakubczak

Maui Police Department A/C John Jakubczak provided an update on emergency services dispatcher recruitment. At the beginning of December, five newly hired dispatchers started their training. There is also a continuous recruitment and are they are moving along to fill some of the vacancies. A/C Jakubczak made mention that their lieutenant is retiring at the end of the month, so the communications division will be looking for a new commander.

e. Hawaii – Paul Ferreira

Hawaii Police Department Acting Lieutenant Travis Ing stated HiPD received their service agreement contracts Friday night. He also provided an update on their police radio dispatcher positions. They presently have five openings and will have another opening in the New Year, as a member of their dispatcher team will be transferring to the records division. At this time, background checks are still being conducted on applicants.

VII. Items for Discussion, Consideration and Action

a. 911 Timeline update.

This is a standing item on the agenda. This is a reminder to everyone to please to submit any updates to the Executive Director as soon as possible.

b. Others.

i. None

VIII. Announcements

- a. Meeting dates (10:00am – 12:00noon):
 - i. **Tuesday**, January 12, 2016 (Combined meeting)(**DLNR Conf. Room**)(**10:30am start time**)
 - ii. Thursday, February 11, 2016 (Combined meeting)
 - iii. Thursday, March 10, 2016 (Combined meeting)
 - iv. Thursday, April 14, 2016 (Combined meeting)
- b. Others
 - i. None

IX. Open Forum: Public comment on issues not on the agenda for consideration for Committee meeting agenda at the next meeting.

- i. The board chair asked if there was anyone who wishes to comment on issues not on the agenda for consideration at the next board meeting to please come forward. No one came forward.
- ii. Ms. Victoria Garcia – FirstNet Update
Ms. Victoria Garcia provided an update on FirstNet. They are trying to put together a Board to oversee communications throughout the state so that people are informed of what FirstNet is doing and can help move things forward. Ms. Garcia thinks this will add value to what the Enhanced 911 Board is doing. Ms. Garcia extended thanks to Mr. Paul Ferreira, who has agreed to sit on the newly formed Board in addition to the Adjutant General. The goal is to bring information to the Enhanced 911 Board and individuals in the county and state individuals that deal with communications. The State Point of Contact (SPOC) is General Logan and Ms. Garcia is the coordinator for FirstNet in Hawaii. FirstNet is on schedule to meet their goal of getting their RFP out by the beginning of January and are under Congressional deadlines. FirstNet has been performing data gathering. She would like to extend thanks of those who have provided data that they needed on Hawaii. Next year, as FirstNet goes forward, they will continue to work with the states, but are trying to get more engaged in the user community which is absolutely essential in terms of what the users will need regarding advanced communications that are deployed. FirstNet has gotten many inquiries regarding tying in 911 to national areas. She mentioned that the Federal Department of Defense (DoD) is also trying to work closer with the state and with 911. Federal DoD is trying to do a cybersecurity project that they would like to tie in with the 911 efforts. Ms. Garcia has asked Mr. Paul Ferreira to sit in on the meeting. Mr. Joe Wassel from the Department of Defense is the contact and he has met the Enhanced 911 Board Executive Director at the NASNA meeting. Mr. Wassel is on-island every two to three months because they are trying to tie Hawaii into this national effort with PACOM and NORTHCOM. They had asked to meet one of the PSAPs. Ms. Garcia asked Ms. Thalia Burns if they

could meet with HPD to discuss further discuss their efforts. Since the group touches public safety and communications, Ms. Garcia believes that it is important the group she is dealing with understands what the Enhanced 911 Board is doing and how it in to other operations.

- iii. Mr. Paul Ferreira asked the Executive Director to add this item to future agendas to provide Ms. Garcia the opportunity to present a FirstNet update at future meetings.

X. Adjournment

- a. Mr. Tony Ramirez motioned to adjourn the meeting. The motion was seconded by voice vote of all board members in attendance and the meeting officially adjourned at 10:52 am.

HAWAII ENHANCED 911 BOARD STATEMENT OF CASH FLOWS
For month ending December 31, 2016

| Budget Analysis | | | | |
|---|------------------|--------------------|----------------------|-----------------------------|
| FY 2016-17 | Actuals | | Annual Budget | % of Budget Expended |
| | DECEMBER | FY-to-DATE | | |
| Receipts: | | | | |
| Enhanced 911 Surcharge Collection | 878,654 | 5,013,539 | 9,650,000 | 52% |
| Interest Income | 5,525 | 25,476 | 36,000 | 71% |
| | | | | |
| Receipts | 884,179 | 5,039,014 | 9,686,000 | 52% |
| Disbursements: | | | | |
| New & Emerging Tech. Training | (11,259) | (22,090) | (221,830) | 10% |
| Non-Recurring Expenses | | 0 | (2,006,438) | 0% |
| Recurring Expenses: | | | | |
| Administration | (286,355) | (383,428) | (984,660) | 39% |
| Maintenance | (120,539) | (527,489) | (3,456,311) | 15% |
| Telecommunications | (234,698) | (853,297) | (2,694,625) | 32% |
| Other | | | (7,600) | 0% |
| | | | | |
| Disbursements | (652,851) | (1,786,304) | (9,371,464) | 19% |
| | | | | |
| Net Receipts/(Disbursements) | 231,327 | 3,252,711 | 314,536 | |
| | | | | |
| Cash Flow Analysis | | | | |
| | | | | |
| Net Receipts/(Disbursements) | 231,327 | 3,252,711 | | |
| | | | | |
| Encumbrance Paydowns: | | | | Encumb. Bal. |
| FY 2011 (Kauai) | | | | 115,648 |
| FY 2014 | (1,102,944) | (1,105,117) | | 13,444 |
| FY 2015 | 1,102,944 | (96,506) | | 2,222,257 |
| FY 2016 | (12,547) | (2,348,752) | | 2,517,513 |
| Accounts Receivable Paydown | | 785,960 | Note 1 | |
| Net Encumbrance Adds/(Paydown) | (12,547) | (2,764,415) | | |
| Net Cash Inflow/(Outflow) | 218,780 | 488,296 | | |
| | | | | |
| Bank Balance Analysis: | | | | |
| ADD: July 1, 2016 Beginning Balance | | 19,469,440 | | |
| Net Bank Balance | | 19,957,736 | | |
| Outstanding Ecumb/Accruals | | (4,868,861) | | |
| Unencumbered Cash Balance | | 15,088,875 | | |
| | | | | |
| Note1- Cash Refund due to early termination of HPD CAD Upgrade | | | | |

HAWAII ENHANCED 911 BOARD STATEMENT OF CASH FLOWS
For month ending December 31, 2016

| MONTH OF DECEMBER 2016 | | Hawaii PSAP | Kauai PSAP | Maui PSAP | Oahu PSAP | ADMIN | TOTAL |
|-----------------------------------|--|-------------|------------|-----------|-----------|---------|---------|
| Total Receipts: | | | - | - | - | 884,179 | 884,179 |
| DISBURSEMENTS: | | | | | | | |
| 6200 New&Emerg. Tech Train. | | | | | | | |
| 6204 APCO Conference | | | - | - | - | 11,259 | 11,259 |
| Total 6200 New&Emerg. Tech Train. | | | - | - | - | 11,259 | 11,259 |
| 6400 RECURRING EXPENSES | | | | | | | |
| 6401 ADMINISTRATION | | | | | | | |
| 6401.01 Exec Dir. Services | | | - | - | - | 25,478 | 25,478 |
| 6401.06 Bank Charge | | | - | - | - | 211 | 211 |
| 6401.08 Board Member Travel | | | - | - | - | 2,565 | 2,565 |
| 6401.09 DB&F Assessments | | | | | | | |
| 6401.0101 DB&F Admin. Assess | | | - | - | - | 28,228 | 28,228 |
| 6401.0102 DB&F Rev Assessment | | | - | - | - | 228,473 | 228,473 |
| Total 6401.09 DB&F Assessments | | | - | - | - | 256,701 | 256,701 |
| 6401.19 Public Education | | | - | - | | 902 | 902 |
| 6401.22 Office Supplies | | | - | - | - | 499 | 499 |
| Total 6401 ADMINISTRATION | | | - | - | - | 286,355 | 286,355 |
| 6402 MAINTENANCE | | | | | | | |
| 6402.07 0011 9-1-1MSAG Maint. | | | 17,058 | 20,148 | 83,333 | - | 120,539 |
| Total 6402 MAINTENANCE | | | 17,058 | 20,148 | 83,333 | - | 120,539 |
| 6403 Other RECURRING | | | | | | | |
| 6403.01 Telcom Charges | | | | | | | |
| 6403.0102 Long Distance | | | - | 29 | - | - | 29 |
| 6403.0109 Telcom Trunk | | | - | 23,208 | 78,907 | - | 102,115 |
| 6403.011 VIPER | | | | | | | |
| 6304.0118 KPD Viper ADC | | | 28,521 | - | - | - | 28,521 |
| 6403.0112 HPD CML Viper-Kapolei | | | - | - | 20,388 | - | 20,388 |
| 6403.0113 HPDCMLViper-Alapai | | | - | - | 2,334 | - | 2,334 |
| 6403.0114 SD Viper (OSL) (3) | | | - | - | 3,253 | - | 3,253 |
| 6403.0119 KPD VIPER | | | 57,328 | - | - | - | 57,328 |
| Total 6403.011 VIPER | | | 85,849 | - | 25,975 | - | 111,824 |
| 6403.0118 Smart911 | | | | | | | |
| EMS | | | - | - | 8,937 | - | 8,937 |
| HPD | | | - | - | 11,793 | - | 11,793 |
| Total 6403.0118 Smart911 | | | - | - | 20,731 | - | 20,731 |
| Total 6403.01 Telcom Charges | | | 85,849 | 23,237 | 125,612 | - | 234,698 |
| Total 6403 Other RECURRING | | | 85,849 | 23,237 | 125,612 | - | 234,698 |
| Total 6400 RECURRING EXPENSES | | | 102,907 | 43,384 | 208,946 | 286,355 | 641,593 |
| Total DISBURSEMENTS: | | | 102,907 | 43,384 | 208,946 | 297,614 | 652,851 |

HAWAII ENHANCED 911 BOARD STATEMENT OF CASH FLOWS
For month ending December 31, 2016

| | Hawaii PSAP | Kauai PSAP | Maui PSAP | Oahu PSAP | ADMIN | TOTAL | | |
|---|----------------|---------------|---------------|---------------|---------------|---------------|--------------------------|---------------------------------|
| FY-TO-DATE DECEMBER 2016 (6 MOS) | 6 mos. | 6 mos. | 6 mos. | 6 mos. | 6 mos. | 6 mos. | ANNUAL Budget | \$ Over/UNDER Budget |
| Total RECEIPTS | - | - | - | - | 5,039,007 | 5,039,007 | - | 5,039,007 |
| DISBURSEMENTS: | | | | | | | | |
| 6200 New&Emerg. Tech Train. | | | | | | | | |
| 6201 911 Goes to WashDC | - | - | - | - | - | - | 37,500 | (37,500) |
| 6202 IWCE Conference | - | - | - | - | - | - | 2,500 | (2,500) |
| 6203 APCO Emerg. Tech Forum | - | (2,768) | - | - | - | (2,768) | - | (2,768) |
| 6204 APCO Conference | 6,419 | 9,307 | 2,920 | - | 13,873 | 32,519 | 41,600 | (9,081) |
| 6205 E-911 PSAP Forum | - | - | - | - | - | - | 13,850 | (13,850) |
| 6206 Smart911 Conference | - | - | - | (2,982) | - | (2,982) | 7,000 | (9,982) |
| 6209 Pictometry Conf | - | - | - | - | - | - | 7,000 | (7,000) |
| 6212 NASNA Conference | - | - | - | - | 1,686 | 1,686 | 2,800 | (1,114) |
| 6213 Navigator | - | - | - | - | - | - | 8,000 | (8,000) |
| 6214 Nena Conference | 883 | 180 | (4,658) | (2,052) | - | (5,648) | 41,000 | (46,648) |
| 6215 NENA Tech Dev. Conf | - | - | - | - | - | - | 3,500 | (3,500) |
| 6216 HiFD Comm CTR Mgr | - | - | - | - | - | - | 18,580 | (18,580) |
| 6217 Spillkman Conf | - | - | - | - | - | - | 7,000 | (7,000) |
| 6222 TriTech CAD Users | | | | | | | | |
| 6222.01 EMS Users | - | - | - | - | - | - | 10,000 | (10,000) |
| 6222.02 HFD Users | - | - | - | - | - | - | 6,000 | (6,000) |
| Total 6222 TriTech CAD Users | - | - | - | - | - | - | 16,000 | (16,000) |
| 6228 HxGN Live Hexagon Conf | - | - | (840) | - | - | (840) | 10,500 | (11,340) |
| 6230.03 Emergency Svcs Trng | - | - | 122 | - | - | 122 | - | 122 |
| 6231 APCO Colorado CC | - | - | - | - | - | - | 5,000 | (5,000) |
| Total 6200 New&Emerg. Tech Train. | 7,302 | 6,719 | (2,456) | (5,034) | 15,559 | 22,090 | 221,830 | (199,740) |
| 6300 Non-RECURRING | | | | | | | | |
| 6301 CAD Replac/Upgrade | | | | | | | | |
| 6301.01 EMS | - | - | - | - | - | - | 331,000 | (331,000) |
| 6301.07 So. Maui Buildout | - | - | - | - | - | - | 466,438 | (466,438) |
| CAD Related Expenses | - | - | - | - | - | - | 65,000 | (65,000) |
| Total 6301 CAD Replac/Upgrade | - | - | - | - | - | - | 862,438 | (862,438) |
| 6303 Computers | | | | | | | | |
| 6303.11 PowerPhone | - | - | (0) | - | - | (0) | - | (0) |
| 6303.25 Workstation | | | | | | | | |
| HFD | - | - | - | - | - | - | 40,000 | (40,000) |
| Total 6303.25 Workstation | - | - | - | - | - | - | 40,000 | (40,000) |
| HPD | - | - | - | - | - | - | 148,000 | (148,000) |
| Total 6303 Computers | - | - | (0) | - | - | (0) | 188,000 | (188,000) |
| 6307 JTMC Related Expenses | | | | | | | | |
| DIT Logging Record JTMC | - | - | - | - | - | - | 356,000 | (356,000) |
| HPD Viper JTMC Relocation | - | - | - | - | - | - | 500,000 | (500,000) |
| Total 6307 JTMC Related Expenses | - | - | - | - | - | - | 856,000 | (856,000) |
| 6308 HiPD Comm CTR Console | - | - | - | - | - | - | 60,000 | (60,000) |
| 6309 HiPD Elect Wiring | - | - | - | - | - | - | 40,000 | (40,000) |
| Total 6300 Non-RECURRING | - | - | (0) | - | - | (0) | 2,006,438 | (2,006,438) |

HAWAII ENHANCED 911 BOARD STATEMENT OF CASH FLOWS

For month ending December 31, 2016

| | Hawaii PSAP | Kauai PSAP | Maui PSAP | Oahu PSAP | ADMIN | TOTAL | | |
|-------------------------------------|----------------|---------------|--------------|--------------|-----------|-----------|------------------|-------------------------|
| FY-TO-DATE DECEMBER 2016 (6 MOS) | 6 mos. | 6 mos. | 6 mos. | 6 mos. | 6 mos. | 6 mos. | ANNUAL Budget | \$ Over/UNDER Budget |
| Total RECEIPTS | - | - | - | - | 5,039,007 | 5,039,007 | - | 5,039,007 |
| DISBURSEMENTS: | | | | | | | | |
| 6200 New & Emerg. Tech Train. | | | | | | | | |
| 6201 911 Goes to WashDC | - | - | - | - | - | - | 37,500 | (37,500) |
| 6202 IWCE Conference | - | - | - | - | - | - | 2,500 | (2,500) |
| 6203 APCO Emerg. Tech Forum | - | (2,768) | - | - | - | (2,768) | - | (2,768) |
| 6204 APCO Conference | 6,419 | 9,307 | 2,920 | - | 13,873 | 32,519 | 41,600 | (9,081) |
| 6205 E-911 PSAP Forum | - | - | - | - | - | - | 13,850 | (13,850) |
| 6206 Smart911 Conference | - | - | - | (2,982) | - | (2,982) | 7,000 | (9,982) |
| 6209 Pictometry Conf | - | - | - | - | - | - | 7,000 | (7,000) |
| 6212 NASNA Conference | - | - | - | - | 1,686 | 1,686 | 2,800 | (1,114) |
| 6213 Navigator | - | - | - | - | - | - | 8,000 | (8,000) |
| 6214 Nena Conference | 883 | 180 | (4,658) | (2,052) | - | (5,648) | 41,000 | (46,648) |
| 6215 NENA Tech Dev. Conf | - | - | - | - | - | - | 3,500 | (3,500) |
| 6216 HFD Comm CTR Mgr | - | - | - | - | - | - | 18,580 | (18,580) |
| 6217 Spillkman Conf | - | - | - | - | - | - | 7,000 | (7,000) |
| 6222 TriTech CAD Users | - | - | - | - | - | - | - | - |
| 6222.01 EMS Users | - | - | - | - | - | - | 10,000 | (10,000) |
| 6222.02 HFD Users | - | - | - | - | - | - | 6,000 | (6,000) |
| Total 6222 TriTech CAD Users | - | - | - | - | - | - | 16,000 | (16,000) |
| 6400 RECURRING EXPENSES | | | | | | | | |
| 6401 ADMINISTRATION | | | | | | | | |
| 6401.01 Exec Dir. Services | - | - | - | - | 104,654 | 104,654 | 180,000 | (75,346) |
| 6401.02 Electron Signatur | - | - | - | - | - | - | 260 | (260) |
| 6401.05 Audit Expense | - | - | - | - | 13,000 | 13,000 | 13,000 | - |
| 6401.06 Bank Charge | - | - | - | - | 211 | 211 | 50 | 161 |
| 6401.08 Board Member Travel | - | - | - | - | 9,990 | 9,990 | 36,180 | (26,190) |
| 6401.09 DB&F Assessments | | | | | | | | |
| 6401.0101 DB&F Admin. Assess | - | - | - | - | 22,738 | 22,738 | 182,280 | (159,542) |
| 6401.0102 DB&F Rev Assessment | - | - | - | - | 231,246 | 231,246 | 457,640 | (226,394) |
| Total 6401.09 DB&F Assessments | - | - | - | - | 253,984 | 253,984 | 639,920 | (385,936) |
| 6401.11 Miscellaneous Expense | - | - | - | - | (0) | (0) | - | (0) |
| 6401.13 Parking Permits | - | - | - | - | - | - | 400 | (400) |
| 6401.15 WSP Cost Recovery | | | | | | | | |
| 6401.0101 Sprint/Nextel | - | - | - | - | 37 | 37 | - | 37 |
| 6401.15 WSP Cost Recovery - Other | - | - | - | - | - | - | 80,000 | (80,000) |
| Total 6401.15 WSP Cost Recovery | - | - | - | - | 37 | 37 | 80,000 | (79,963) |
| 6401.16 Meeting Expenses | - | - | - | - | 117 | 117 | 500 | (383) |
| 6401.17 ADA Compliance | - | - | - | - | - | - | 150 | (150) |
| 6401.18 AG Legal Fees | - | - | - | - | - | - | 8,000 | (8,000) |
| 6401.19 Public Education | - | - | - | - | (378) | (378) | 10,000 | (10,378) |
| 6401.21 Cell Phone Charges | - | - | - | - | 299 | 299 | 1,200 | (901) |
| 6401.22 Office Supplies | - | - | - | - | 1,525 | 1,525 | 5,000 | (3,475) |
| 6401.24 Office Furn EQ | - | - | - | - | (11) | (11) | 7,500 | (7,511) |
| 6401.26 IntraState Travel | - | - | - | - | - | - | 2,500 | (2,500) |
| Total 6401 ADMINISTRATION | - | - | - | - | 383,428 | 383,428 | 984,660 | (601,232) |
| 6402 MAINTENANCE | | | | | | | | |
| 6402.02 Imagery Lic Agree | - | - | - | - | - | - | 1,564,447 | (1,564,447) |
| 6402.05 Logging Record Maint | - | - | - | - | - | - | 60,775 | (60,775) |
| 6402.07 0011 9-1-1MSAG Maint. | 67,446 | 51,175 | 142,406 | 166,666 | - | 427,693 | 1,261,089 | (833,396) |
| 6402.08 CAD Maintenance | - | - | - | 104,401 | - | 104,401 | 570,000 | (465,599) |
| 6402.11 GeoComm Maint | (4,604) | - | - | - | - | (4,604) | - | (4,604) |
| Total 6402 MAINTENANCE | 62,842 | 51,175 | 142,406 | 271,067 | - | 527,489 | 3,456,311 | (2,928,822) |
| 6403 Other RECURRING | | | | | | | | |
| 6403.01 Telcom Charges | | | | | | | | |
| 6403.0101 Alt. PSAP 9-1-1 Del | - | (202) | - | - | - | (202) | 600,804 | (601,006) |
| 6403.0102 Long Distance | 86 | (30) | (80) | - | - | (24) | 2,103 | (2,127) |
| 6403.0109 Telcom Trunk | 76,586 | 0 | 116,040 | 394,534 | - | 587,161 | 1,643,243 | (1,056,082) |
| 6403.011 VIPER | | | | | | | | |
| 6304.0118 KPD Viper ADC | - | 133,331 | - | - | - | 133,331 | - | 133,331 |
| 6403.0112 HPD CML Viper-Kapolei | - | - | - | 18,350 | - | 18,350 | 122,330 | (103,980) |
| 6403.0113 HPDCML Viper-Alapai | - | - | - | 5,835 | - | 5,835 | 14,003 | (8,168) |
| 6403.0114 SD Viper (OSL) (3) | - | - | - | 16,738 | - | 16,738 | 40,202 | (23,464) |
| 6403.0119 KPD VIPER | - | 67,148 | - | - | - | 67,148 | - | 67,148 |
| 6403.0121 HFD Viper | - | - | - | - | - | - | 162,000 | (162,000) |
| Total 6403.011 VIPER | - | 200,479 | - | 40,922 | - | 241,401 | 338,535 | (97,134) |
| 6403.0115 Text-to-911 Service | - | - | - | - | - | - | - | - |
| 6403.01156 Wailuku Maui | - | - | 880 | - | - | 880 | 3,500 | (2,620) |
| Total 6403.0115 Text-to-911 Service | - | - | 880 | - | - | 880 | 3,500 | (2,620) |
| 6403.0116 Alt PSAP Call Route | - | - | - | - | - | - | 300 | (300) |
| 6403.0118 Smart911 | | | | | | | | |
| EMS | - | - | - | 8,937 | - | 8,937 | 78,600 | (69,663) |
| HPD | - | - | - | 13,547 | - | 13,547 | 27,540 | (13,993) |
| Total 6403.0118 Smart911 | - | - | - | 22,484 | - | 22,484 | 106,140 | (83,656) |
| 6403.0122 HT Text-2-911 Svcs. | - | - | - | 1,597 | - | 1,597 | - | 1,597 |
| Total 6403.01 Telcom Charges | 76,672 | 200,247 | 116,840 | 459,537 | - | 853,297 | 2,694,625 | (1,841,328) |
| 6403.02 EMS Tower Lease | - | - | - | - | - | - | 7,600 | (7,600) |
| Total 6403 Other RECURRING | 76,672 | 200,247 | 116,840 | 459,537 | - | 853,297 | 2,702,225 | (1,848,928) |
| Total 6400 RECURRING EXPENSES | 139,514 | 251,422 | 259,246 | 730,604 | 383,428 | 1,764,214 | 7,143,196 | (5,378,982) |
| Total DISBURSEMENTS: | 146,816 | 258,141 | 256,789 | 725,570 | 398,987 | 1,786,304 | 9,371,464 | (7,585,160) |

HAWAII ENHANCED 911 BOARD STATEMENT OF CASH FLOWS
For month ending December 31, 2016

ENCUMBRANCE DETAILS

| ENCUMBRANCES | Dec. 31, 2016 |
|--|----------------------|
| Total FY 2011 CAD Upgrade: Kauai PSAP | 115,647.66 |
| <i>CAD Upgrade- Hawaii PSAP</i> | |
| AG Legal Expenses for IRC - ADMIN | 13,443.64 |
| Total FY 2014 Encumbrances | 13,443.64 |
| CAD Upgrade - Hawaii PSAP | 2,217,774.00 |
| Imagery License - Hawaii PSAP | 4,383.32 |
| Kauai ADC | 99.56 |
| Total FY 2015 Encumbrances | 2,222,256.88 |
| Hawaii PSAP Text-to-911 | 20,800.00 |
| Kauai PSAP Text-to-911 | 26,900.00 |
| Maui PSAP Text-to-911 | 29,000.00 |
| Oahu PSAP Text-to-911 | 101,860.32 |
| Kauai CAD Upgrade | 821,841.92 |
| Maui Equipment Purchases | 40,492.00 |
| Maui Viper Equipment | 1,443,711.40 |
| So. Maui Buildout | 32,907.00 |
| Total FY 2016 Encumbrances | 2,517,512.64 |
| | |
| Total Encumbrances | 4,868,860.82 |

HAWAII ENHANCED 911 BOARD STATEMENT OF CASH FLOWS
For month ending December 31, 2016

| FY 2016 STRATEGIC BUDGET PLAN | HAWAII PSAP | OAHU PSAP | MAUI PSAP | KAUAI PSAP | ADMIN | TOTAL | Board Approval Date |
|---|------------------|------------------|------------------|----------------|------------------|------------------|---------------------------|
| Approved FY 2017 Strategic Budget Plan | 1,688,345 | 3,904,350 | 2,599,048 | 779,796 | 1,014,010 | 9,985,549 | 6/9/2016 |
| APCO Conf. Aug. 14-17, 2016 (Orlando) (B.Morgan) | | | | | 3,300 | 3,300 | 7/14/2016 |
| NASNA Conf, Oct 25-26, 2016 (Kansas City) | | | | | 1,800 | 1,800 | 7/14/2016 |
| APCO Colorado Chapter Conference, Oct. 6- 7. 2016, Denver, CO | | 5,000 | | | | 5,000 | 7/14/2016 |
| MPD (1) NENA Development Conference & Critical Issues Forum Train(DR) | | | 3,500 | | | 3,500 | 8/11/2016 |
| MPD--Equipment to Complete Kihei Comm Center | | | 466,438 | | | 466,438 | 8/11/2016 |
| MPD - Delay of CAD Upgrade until 2018 (Balance for Gardner Consultants) | | | (1,435,000) | | | (1,435,000) | 8/11/2016 |
| | | | | | | - | |
| ADMIN - Public Education (Text-to-911) | | | | | | - | 10/13/2016 |
| Oahu PSAP - Imagery License agreement | | 440,877 | | | | 440,877 | 11//10/2016 |
| EMS-JTMC Viper/CAD/Excom Move in | | (50,000) | | | | (50,000) | 12/2/2016 |
| EMS-Shared Re-Hosting Cost JTMC Move | | (50,000) | | | | (50,000) | 12/12/2016 |
| | | | | | | - | |
| | | | | | | - | |
| Totals | 1,688,345 | 4,250,227 | 1,633,986 | 779,796 | 1,019,110 | 9,371,464 | |

10,200,000 Ceiling

828,536 Balance

65,000

763,536

HAWAII ENHANCED 911 BOARD STATEMENT OF CASH FLOWS
For month ending December 31, 2016

Checks that were paid with only one signatory required

| Month | Check # | PAYEE | | | | Amount | Reason | | | |
|--------------|---------|--------------------------------------|--|--|--|--------------------|---------|--|--|--|
| Jul-16 | 2329 | Director of Finance, State of Hawaii | | | | 385.41 | pCard | | | |
| | 2326 | Director of Finance, State of Hawaii | | | | \$ 7,395.31 | Payroll | | | |
| | 2333 | Director of Finance, State of Hawaii | | | | \$ 7,586.69 | Payroll | | | |
| Aug-16 | 2355 | Director of Finance, State of Hawaii | | | | \$ 185.23 | pCard | | | |
| | 2356 | Director of Finance, State of Hawaii | | | | \$ 7,395.31 | Payroll | | | |
| | 2364 | Director of Finance, State of Hawaii | | | | \$ 7,395.31 | Payroll | | | |
| Sep-16 | 2370 | Director of Finance, State of Hawaii | | | | \$ 6,791.29 | Payroll | | | |
| | 2375 | Director of Finance, State of Hawaii | | | | \$ 91.19 | pCard | | | |
| | 2378 | Director of Finance, State of Hawaii | | | | \$ 8,599.20 | Payroll | | | |
| Oct-16 | 2386 | Director of Finance, State of Hawaii | | | | \$ 8,516.86 | Payroll | | | |
| | 2395 | Director of Finance, State of Hawaii | | | | \$ 475.88 | pCard | | | |
| Nov-16 | 2404 | Director of Finance, State of Hawaii | | | | \$ 8,492.53 | Payroll | | | |
| | 2408 | Director of Finance, State of Hawaii | | | | \$ 8,492.63 | Payroll | | | |
| Dec-16 | 2422 | Director of Finance, State of Hawaii | | | | \$ 8,492.63 | Payroll | | | |
| | 2426 | Director of Finance, State of Hawaii | | | | \$ 498.90 | pCard | | | |
| | 2429 | Director of Finance, State of Hawaii | | | | \$ 8,492.63 | Payroll | | | |
| | | | | | | | | | | |
| Total | | | | | | \$89,287.00 | | | | |

HAWAII ENHANCED 911 BOARD STATEMENT OF CASH FLOWS
For month ending December 31, 2016

| | | Hawaii PSAP | | |
|-------------------------------------|------------------------|-------------|---------------|----------------------|
| FY-TO-DATE DECEMBER 2016 (6 MOS) | | 6 mos. | ANNUAL Budget | \$ Over/UNDER Budget |
| Total RECEIPTS | | - | - | - |
| DISBURSEMENTS: | | | | |
| 6200 New & Emerg. Tech Train. | | | | |
| 6201 | 911 Goes to WashDC | - | 7,000 | (7,000) |
| 6202 | IWCE Conference | - | - | - |
| 6203 | APCO Emerg. Tech Forum | - | - | - |
| 6204 | APCO Conference | 6,419 | 7,000 | (581) |
| 6205 | E-911 PSAP Forum | - | - | - |
| 6206 | Smart911 Conference | - | - | - |
| 6209 | Pictometry Conf | - | - | - |
| 6212 | NASNA Conference | - | - | - |
| 6213 | Navigator | - | - | - |
| 6214 | Nena Conference | 883 | 7,000 | (6,117) |
| 6215 | NENA Tech Dev. Conf | - | - | - |
| 6216 | HiFD Comm CTR Mgr | - | 18,580 | (18,580) |
| 6217 | Spillkman Conf | - | 7,000 | (7,000) |
| 6222 | TriTech CAD Users | | | |
| 6222.01 | EMS Users | - | - | - |
| 6222.02 | HFD Users | - | - | - |
| Total 6222 TriTech CAD Users | | - | - | - |
| 6400 RECURRING EXPENSES | | | | |
| 6402 MAINTENANCE | | | | |
| 6402.02 | Imagery Lic Agree | - | 926,570 | (926,570) |
| 6402.05 | Logging RecordMaint | - | - | - |
| 6402.07 | 0011 9-1-1MSAG Maint. | 67,446 | 307,647 | (240,201) |
| 6402.08 | CAD Maintenance | - | - | - |
| 6402.11 | GeoComm Maint | (4,604) | - | (4,604) |
| Total 6402 MAINTENANCE | | 62,842 | 1,234,217 | (1,171,375) |
| 6403 Other RECURRING | | | | |
| 6403.01 Telcom Charges | | | | |
| 6403.0101 | Alt. PSAP 9-1-1 Del | - | - | - |
| 6403.0102 | Long Distance | 86 | 1,200 | (1,114) |
| 6403.0109 | Telcom Trunk | 76,586 | 306,348 | (229,762) |
| 6403.011 VIPER | | | | |
| 6304.0118 | KPD Viper ADC | - | - | - |
| 6403.0112 | HPD CML Viper-Kapolei | - | - | - |
| 6403.0113 | HPDCMLViper-Alapai | - | - | - |
| 6403.0114 | SD Viper (OSL) (3) | - | - | - |
| 6403.0119 | KPD VIPER | - | - | - |
| 6403.0121 | HFD Viper | - | - | - |
| Total 6403.011 VIPER | | - | - | - |
| 6403.0115 Text-to-911 Service | | | | |
| 6403.01156 | Wailuku Maui | - | - | - |
| Total 6403.0115 Text-to-911 Service | | - | - | - |
| 6403.0116 Alt PSAP Call Route | | - | - | - |
| 6403.0118 Smart911 | | | | |
| EMS | | - | - | - |
| HPD | | - | - | - |
| Total 6403.0118 Smart911 | | - | - | - |
| 6403.0122 | HT Text-2-911 Svcs. | - | - | - |
| Total 6403.01 Telcom Charges | | 76,672 | 307,548 | (230,876) |
| 6403.02 EMS Tower Lease | | - | - | - |
| Total 6403 Other RECURRING | | 76,672 | 307,548 | (230,876) |
| Total 6400 RECURRING EXPENSES | | 139,514 | 1,541,765 | (1,402,251) |
| Total DISBURSEMENTS: | | 146,816 | 1,688,345 | (1,541,529) |

HAWAII ENHANCED 911 BOARD STATEMENT OF CASH FLOWS
For month ending December 31, 2016

| | | | | Kauai PSAP | | |
|----------------------------------|-------------------------------------|---------------------------------|--|------------|---------------|----------------------|
| FY-TO-DATE DECEMBER 2016 (6 MOS) | | | | 6 mos. | ANNUAL Budget | \$ Over/UNDER Budget |
| Total RECEIPTS | | | | - | - | - |
| DISBURSEMENTS: | | | | | | |
| 6200 New & Emerg. Tech Train. | | | | | | |
| | 6201 | 911 Goes to WashDC | | - | 3,500 | (3,500) |
| | 6202 | IWCE Conference | | - | - | - |
| | 6203 | APCO Emerg. Tech Forum | | (2,768) | - | (2,768) |
| | 6204 | APCO Conference | | 9,307 | 10,500 | (1,193) |
| | 6205 | E-911 PSAP Forum | | - | - | - |
| | 6206 | Smart911 Conference | | - | - | - |
| | 6209 | Pictometry Conf | | - | - | - |
| | 6212 | NASNA Conference | | - | - | - |
| | 6213 | Navigator | | - | - | - |
| | 6214 | Nena Conference | | 180 | 7,000 | (6,820) |
| | 6215 | NENA Tech Dev. Conf | | - | - | - |
| | 6216 | HiFD Comm CTR Mgr | | - | - | - |
| | 6217 | Spillkman Conf | | - | - | - |
| | 6222 | TriTech CAD Users | | | | |
| | | 6222.01 EMS Users | | - | - | - |
| | | 6222.02 HFD Users | | - | - | - |
| | Total 6222 TriTech CAD Users | | | - | - | - |
| 6400 RECURRING EXPENSES | | | | | | |
| | 6402 | MAINTENANCE | | | | |
| | | 6402.02 Imagery Lic Agree | | - | 197,000 | (197,000) |
| | | 6402.05 Logging Record Maint | | - | - | - |
| | | 6402.07 0011 9-1-1MSAG Maint. | | 51,175 | 211,880 | (160,705) |
| | | 6402.08 CAD Maintenance | | - | - | - |
| | | 6402.11 GeoComm Maint | | - | - | - |
| | Total 6402 MAINTENANCE | | | 51,175 | 408,880 | (357,705) |
| 6403 Other RECURRING | | | | | | |
| | 6403.01 | Telcom Charges | | | | |
| | | 6403.0101 Alt. PSAP 9-1-1 Del | | (202) | 237,736 | (237,938) |
| | | 6403.0102 Long Distance | | (30) | 480 | (510) |
| | | 6403.0109 Telcom Trunk | | 0 | 111,400 | (111,400) |
| | | 6403.011 VIPER | | | | |
| | | 6304.0118 KPD Viper ADC | | 133,331 | - | 133,331 |
| | | 6403.0112 HPD CML Viper-Kapolei | | - | - | - |
| | | 6403.0113 HPDCMLViper-Alapai | | - | - | - |
| | | 6403.0114 SD Viper (OSL) (3) | | - | - | - |
| | | 6403.0119 KPD VIPER | | 67,148 | - | 67,148 |
| | | 6403.0121 HFD Viper | | - | - | - |
| | Total 6403.011 VIPER | | | 200,479 | - | 200,479 |
| | 6403.0115 | Text-to-911 Service | | | | |
| | | 6403.01156 Wailuku Maui | | - | - | - |
| | Total 6403.0115 Text-to-911 Service | | | - | - | - |
| | 6403.0116 | Alt PSAP Call Route | | - | 300 | (300) |
| | 6403.0118 | Smart911 | | | | |
| | | EMS | | - | - | - |
| | | HPD | | - | - | - |
| | Total 6403.0118 Smart911 | | | - | - | - |
| | 6403.0122 | HT Text-2-911 Svcs. | | - | - | - |
| | Total 6403.01 Telcom Charges | | | 200,247 | 349,916 | (149,669) |
| | 6403.02 | EMS Tower Lease | | - | - | - |
| | Total 6403 Other RECURRING | | | 200,247 | 349,916 | (149,669) |
| | Total 6400 RECURRING EXPENSES | | | 251,422 | 758,796 | (507,374) |
| Total DISBURSEMENTS: | | | | 258,141 | 779,796 | (521,655) |

HAWAII ENHANCED 911 BOARD STATEMENT OF CASH FLOWS
For month ending December 31, 2016

| | | | | Maui PSAP | | |
|----------------------------------|-------------------------------------|---------------------------------|--|-----------|---------------|----------------------|
| FY-TO-DATE DECEMBER 2016 (6 MOS) | | | | 6 mos. | ANNUAL Budget | \$ Over/UNDER Budget |
| Total RECEIPTS | | | | - | - | - |
| DISBURSEMENTS: | | | | | | |
| 6200 New &Emerg. Tech Train. | | | | | | |
| | 6201 | 911 Goes to WashDC | | - | 10,500 | (10,500) |
| | 6202 | IWCE Conference | | - | - | - |
| | 6203 | APCO Emerg. Tech Forum | | - | - | - |
| | 6204 | APCO Conference | | 2,920 | 3,500 | (580) |
| | 6205 | E-911 PSAP Forum | | - | - | - |
| | 6206 | Smart911 Conference | | - | - | - |
| | 6209 | Pictometry Conf | | - | 7,000 | (7,000) |
| | 6212 | NASNA Conference | | - | - | - |
| | 6213 | Navigator | | - | - | - |
| | 6214 | Nena Conference | | (4,658) | 10,500 | (15,158) |
| | 6215 | NENA Tech Dev. Conf | | - | 3,500 | (3,500) |
| | 6216 | HiFD Comm CTR Mgr | | - | - | - |
| | 6217 | Spillkman Conf | | - | - | - |
| | 6222 | TriTech CAD Users | | | | |
| | | 6222.01 EMS Users | | - | - | - |
| | | 6222.02 HFD Users | | - | - | - |
| | Total 6222 TriTech CAD Users | | | - | - | - |
| 6400 RECURRING EXPENSES | | | | | | |
| | 6402 MAINTENANCE | | | | | |
| | | 6402.02 Imagery Lic Agree | | - | - | - |
| | | 6402.05 Logging RecordMaint | | - | - | - |
| | | 6402.07 0011 9-1-1MSAG Maint. | | 142,406 | 241,562 | (99,156) |
| | | 6402.08 CAD Maintenance | | - | 170,000 | (170,000) |
| | | 6402.11 GeoComm Maint | | - | - | - |
| | Total 6402 MAINTENANCE | | | 142,406 | 411,562 | (269,156) |
| | 6403 Other RECURRING | | | | | |
| | 6403.01 Telcom Charges | | | | | |
| | | 6403.0101 Alt. PSAP 9-1-1 Del | | - | 363,068 | (363,068) |
| | | 6403.0102 Long Distance | | (80) | 423 | (503) |
| | | 6403.0109 Telcom Trunk | | 116,040 | 278,495 | (162,455) |
| | | 6403.011 VIPER | | | | |
| | | 6304.0118 KPD Viper ADC | | - | - | - |
| | | 6403.0112 HPD CML Viper-Kapolei | | - | - | - |
| | | 6403.0113 HPDCMLViper-Alapai | | - | - | - |
| | | 6403.0114 SD Viper (OSL) (3) | | - | - | - |
| | | 6403.0119 KPD VIPER | | - | - | - |
| | | 6403.0121 HFD Viper | | - | - | - |
| | Total 6403.011 VIPER | | | - | - | - |
| | | 6403.0115 Text-to-911 Service | | | | |
| | | 6403.01156 Wailuku Maui | | 880 | 3,500 | (2,620) |
| | Total 6403.0115 Text-to-911 Service | | | 880 | 3,500 | (2,620) |
| | | 6403.0116 Alt PSAP Call Route | | - | - | - |
| | | 6403.0118 Smart911 | | | | |
| | | EMS | | - | - | - |
| | | HPD | | - | - | - |
| | Total 6403.0118 Smart911 | | | - | - | - |
| | | 6403.0122 HT Text-2-911 Svcs. | | - | - | - |
| | Total 6403.01 Telcom Charges | | | 116,840 | 645,486 | (528,646) |
| | | 6403.02 EMS Tower Lease | | - | - | - |
| | Total 6403 Other RECURRING | | | 116,840 | 645,486 | (528,646) |
| | Total 6400 RECURRING EXPENSES | | | 259,246 | 1,057,048 | (797,802) |
| Total DISBURSEMENTS: | | | | 256,789 | 1,633,986 | (1,377,197) |

HAWAII ENHANCED 911 BOARD STATEMENT OF CASH FLOWS
For month ending December 31, 2016

| | | | | | Oahu PSAP | | |
|----------------------------------|-------------------------------------|---------------------------------|--|--|-----------|---------------|----------------------|
| FY-TO-DATE DECEMBER 2016 (6 MOS) | | | | | 6 mos. | ANNUAL Budget | \$ Over/UNDER Budget |
| Total RECEIPTS | | | | | - | - | - |
| DISBURSEMENTS: | | | | | | | |
| 6200 New &Emerg. Tech Train. | | | | | | | |
| | 6201 | 911 Goes to WashDC | | | - | 10,500 | (10,500) |
| | 6202 | IWCE Conference | | | - | - | - |
| | 6203 | APCO Emerg. Tech Forum | | | - | - | - |
| | 6204 | APCO Conference | | | - | 17,300 | (17,300) |
| | 6205 | E-911 PSAP Forum | | | - | - | - |
| | 6206 | Smart911 Conference | | | (2,982) | 7,000 | (9,982) |
| | 6209 | Pictometry Conf | | | - | - | - |
| | 6212 | NASNA Conference | | | - | - | - |
| | 6213 | Navigator | | | - | 8,000 | (8,000) |
| | 6214 | Nena Conference | | | (2,052) | 10,500 | (12,552) |
| | 6215 | NENA Tech Dev. Conf | | | - | - | - |
| | 6216 | HiFD Comm CTR Mgr | | | - | - | - |
| | 6217 | Spillkman Conf | | | - | - | - |
| | 6222 | TriTech CAD Users | | | | | |
| | | 6222.01 EMS Users | | | - | 10,000 | (10,000) |
| | | 6222.02 HFD Users | | | - | 6,000 | (6,000) |
| | Total 6222 TriTech CAD Users | | | | - | 16,000 | (16,000) |
| 6400 RECURRING EXPENSES | | | | | | | |
| 6402 MAINTENANCE | | | | | | | |
| | | 6402.02 Imagery Lic Agree | | | - | 440,877 | (440,877) |
| | | 6402.05 Logging RecordMaint | | | - | 60,775 | (60,775) |
| | | 6402.07 0011 9-1-1MSAG Maint. | | | 166,666 | 500,000 | (333,334) |
| | | 6402.08 CAD Maintenance | | | 104,401 | 400,000 | (295,599) |
| | | 6402.11 GeoComm Maint | | | - | - | - |
| | Total 6402 MAINTENANCE | | | | 271,067 | 1,401,652 | (1,130,585) |
| 6403 Other RECURRING | | | | | | | |
| 6403.01 Telcom Charges | | | | | | | |
| | | 6403.0101 Alt. PSAP 9-1-1 Del | | | - | - | - |
| | | 6403.0102 Long Distance | | | - | - | - |
| | | 6403.0109 Telcom Trunk | | | 394,534 | 947,000 | (552,466) |
| | | 6403.011 VIPER | | | | | |
| | | 6304.0118 KPD Viper ADC | | | - | - | - |
| | | 6403.0112 HPD CML Viper-Kapolei | | | 18,350 | 122,330 | (103,980) |
| | | 6403.0113 HPDCML Viper-Alapai | | | 5,835 | 14,003 | (8,168) |
| | | 6403.0114 SD Viper (OSL) (3) | | | 16,738 | 40,202 | (23,464) |
| | | 6403.0119 KPD VIPER | | | - | - | - |
| | | 6403.0121 HFD Viper | | | - | 162,000 | (162,000) |
| | Total 6403.011 VIPER | | | | 40,922 | 338,535 | (297,613) |
| | | 6403.0115 Text-to-911 Service | | | | | |
| | | 6403.01156 Wailuku Maui | | | - | - | - |
| | Total 6403.0115 Text-to-911 Service | | | | - | - | - |
| | | 6403.0116 Alt PSAP Call Route | | | - | - | - |
| | | 6403.0118 Smart911 | | | | | |
| | | EMS | | | 8,937 | 78,600 | (69,663) |
| | | HPD | | | 13,547 | 27,540 | (13,993) |
| | Total 6403.0118 Smart911 | | | | 22,484 | 106,140 | (83,656) |
| | | 6403.0122 HT Text-2-911 Svcs. | | | 1,597 | - | 1,597 |
| | Total 6403.01 Telcom Charges | | | | 459,537 | 1,391,675 | (932,138) |
| | | 6403.02 EMS Tower Lease | | | - | 7,600 | (7,600) |
| | Total 6403 Other RECURRING | | | | 459,537 | 1,399,275 | (939,738) |
| | Total 6400 RECURRING EXPENSES | | | | 730,604 | 2,800,927 | (2,070,323) |
| Total DISBURSEMENTS: | | | | | 725,570 | 4,250,227 | (3,524,657) |

HAWAII ENHANCED 911 BOARD STATEMENT OF CASH FLOWS
For month ending December 31, 2016

| | | | | | ADMIN | | |
|----------------------------------|------------------------------------|------------------------|-----------------------|---------------------------|-----------|---------------|----------------------|
| FY-TO-DATE DECEMBER 2016 (6 MOS) | | | | | 6 mos. | ANNUAL Budget | \$ Over/UNDER Budget |
| Total RECEIPTS | | | | | 5,039,007 | - | 5,039,007 |
| DISBURSEMENTS: | | | | | | | |
| 6200 New &Emerg. Tech Train. | | | | | | | |
| | 6201 | 911 | Goes to WashDC | | - | 6,000 | (6,000) |
| | 6202 | IWCE Conference | | | - | 2,500 | (2,500) |
| | 6203 | APCO Emerg. Tech Forum | | | - | - | - |
| | 6204 | APCO Conference | | | 13,873 | 3,300 | 10,573 |
| | 6205 | E-911 PSAP Forum | | | - | 13,850 | (13,850) |
| | 6206 | Smart911 Conference | | | - | - | - |
| | 6209 | Pictometry Conf | | | - | - | - |
| | 6212 | NASNA Conference | | | 1,686 | 2,800 | (1,114) |
| | 6213 | Navigator | | | - | - | - |
| | 6214 | Nena Conference | | | - | 6,000 | (6,000) |
| | 6215 | NENA Tech Dev. Conf | | | - | - | - |
| | 6216 | HiFD Comm CTR Mgr | | | - | - | - |
| | 6217 | Spillkman Conf | | | - | - | - |
| | 6222 | TriTech CAD Users | | | | | |
| | | 6222.01 | EMS Users | | - | - | - |
| | | 6222.02 | HFD Users | | - | - | - |
| | Total 6222 TriTech CAD Users | | | | - | - | - |
| | 6228 | HxGN Live Hexagon Conf | | | - | - | - |
| | 6230.03 | Emergency Svcs Trng | | | - | - | - |
| | 6231 | APCO Colorado CC | | | - | - | - |
| | Total 6200 New &Emerg. Tech Train. | | | | 15,559 | 34,450 | (18,891) |
| 6400 RECURRING EXPENSES | | | | | | | |
| 6401 ADMINISTRATION | | | | | | | |
| | | 6401.01 | Exec Dir. Services | | 104,654 | 180,000 | (75,346) |
| | | 6401.02 | ElectronSignatur | | - | 260 | (260) |
| | | 6401.05 | Audit Expense | | 13,000 | 13,000 | - |
| | | 6401.06 | Bank Charge | | 211 | 50 | 161 |
| | | 6401.08 | Board Member Travel | | 9,990 | 36,180 | (26,190) |
| | | 6401.09 | DB&F Assessments | | | | |
| | | | 6401.0101 | DB&F Admin. Assess | 22,738 | 182,280 | (159,542) |
| | | | 6401.0102 | DB&F Rev Assessment | 231,246 | 457,640 | (226,394) |
| | Total 6401.09 DB&F Assessments | | | | 253,984 | 639,920 | (385,936) |
| | | 6401.11 | Miscellaneous Expense | | (0) | - | (0) |
| | | 6401.13 | Parking Permits | | - | 400 | (400) |
| | | 6401.15 | WSP Cost Recovery | | | | |
| | | | 6401.0101 | Sprint/Nextel | 37 | - | 37 |
| | | | 6401.15 | WSP Cost Recovery - Other | - | 80,000 | (80,000) |
| | Total 6401.15 WSP Cost Recovery | | | | 37 | 80,000 | (79,963) |
| | | 6401.16 | Meeting Expenses | | 117 | 500 | (383) |
| | | 6401.17 | ADA Compliance | | - | 150 | (150) |
| | | 6401.18 | AG Legal Fees | | - | 8,000 | (8,000) |
| | | 6401.19 | Public Education | | (378) | 10,000 | (10,378) |
| | | 6401.21 | Cell Phone Charges | | 299 | 1,200 | (901) |
| | | 6401.22 | Office Supplies | | 1,525 | 5,000 | (3,475) |
| | | 6401.24 | Office Furn EQ | | (11) | 7,500 | (7,511) |
| | | 6401.26 | IntraState Travel | | - | 2,500 | (2,500) |
| | Total 6401 ADMINISTRATION | | | | 383,428 | 984,660 | (601,232) |
| | Total 6400 RECURRING EXPENSES | | | | 383,428 | 984,660 | (601,232) |
| Total DISBURSEMENTS: | | | | | 398,987 | 1,019,110 | (620,123) |

Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016



Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016

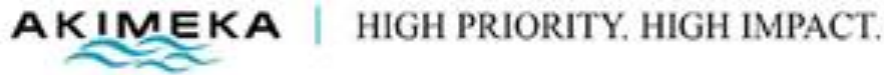


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Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016

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Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016

| | |
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Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016

1. PSAP OPERATIONS

9-1-1 CALL VOLUME HAWAII COUNTY PSAPS – DECEMBER 2016

(Source: West Safety Services Viper system)

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

| 9-1-1 Call Volume | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------------|-----------------------|------------------|-----------------------|------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|------------------|--------------------|------------------|------------------------|------------------|--------------------|------------------|
| HAWAII 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 | % 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 |
| DEC | 17,192 | 3,370 | 19.60% | 11,581 | 67.36% | 44.94% | 55.06% | 870 | 5.06% | 13 | 0.08% | 0 | 0.00% | 1,349 | 7.85% | 0 | 0.00% |

CALL VOLUME HAWAII COUNTY PSAP NOTES:

*The percentage of Wireless Phase 2 calls (55.06%) has increased from the number of Wireless Phase 1 calls (44.94%) in December 2016.

*911 Calls with no Ali average for 2016 = 0.12% - Statewide average for 2016 = 0.15%

9-1-1 CALL VOLUME – CALENDAR YEAR 2016

| 9-1-1 Call Volume | | | | | | | | | | | | | | | | | |
|---------------------|-----------------------------|-----------------------|------------------|-----------------------|------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|------------------|--------------------|------------------|------------------------|------------------|--------------------|------------------|
| HAWAII 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 | % 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 | 0.05% | 1,359 | 7.84% | 0 | 2.30% |
| JUNE | 17,176 | 3,148 | 18.33% | 11,641 | 67.77% | 45.00% | 55.00% | 755 | 4.40% | 26 | 0.15% | 0 | 0.00% | 1,606 | 9.35% | 0 | 0.00% |
| JULY | 17,869 | 3,330 | 18.64% | 12,437 | 69.60% | 40.69% | 59.31% | 737 | 4.12% | 32 | 0.18% | 0 | 0.00% | 1,333 | 7.46% | 0 | 0.00% |
| AUG | 17,560 | 3,081 | 17.55% | 12,229 | 69.64% | 42.06% | 57.94% | 766 | 4.36% | 21 | 0.12% | 0 | 0.00% | 1,463 | 8.33% | 0 | 0.00% |
| SEPT | 16,085 | 2,836 | 17.63% | 11,240 | 69.88% | 42.22% | 57.78% | 682 | 4.24% | 11 | 0.07% | 0 | 0.00% | 1,316 | 8.18% | 0 | 0.00% |
| OCT | 16,671 | 2,842 | 17.05% | 11,660 | 69.94% | 46.79% | 53.21% | 792 | 4.75% | 21 | 0.13% | 0 | 0.00% | 1,356 | 8.13% | 0 | 0.00% |
| NOV | 14,720 | 2,571 | 17.47% | 10,216 | 69.40% | 45.26% | 54.74% | 771 | 5.24% | 29 | 0.20% | 0 | 0.00% | 1,133 | 7.70% | 0 | 0.00% |
| DEC | 17,192 | 3,370 | 19.60% | 11,581 | 67.36% | 44.94% | 55.06% | 870 | 5.06% | 13 | 0.08% | 0 | 0.00% | 1,349 | 7.85% | 0 | 0.00% |
| YTD | 205,412 | 37,396 | | 142,013 | | | | 9,219 | | 248 | | 0 | | 16,527 | | 0 | |
| MON AVG | 17,118 | 3,116 | 18.18% | 11,834 | 69.15% | 45.22% | 54.78% | 768 | 4.50% | 21 | 0.12% | 0 | 0.52% | 1,377 | 8.04% | 0 | 0.42% |

Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016

9-1-1 CALL VOLUME BY AGENCY – DECEMBER 2016

| 2016 | 9-1-1 Call Volume by Agency | | | | | | | | | |
|----------|--------------------------------|------------------|-----------------------|-----------------------------------|-----------------------|--------------------------------|------------------|-----------------------|-----------------------------------|-----------------------|
| | Hawaii Police Department | | | | | Hawaii Fire Department | | | | |
| | 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 |
| December | 13,533 | 78.72% | 0 | 1,334 | 0 | 2,310 | 13.44% | 0 | 15 | 0 |

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

| 2016 | 9-1-1 Call Volume by Agency | | | | | | | | | |
|-----------|--------------------------------|------------------|-----------------------|-----------------------------------|-----------------------|--------------------------------|------------------|-----------------------|-----------------------------------|-----------------------|
| | Hawaii Police Department | | | | | Hawaii Fire Department | | | | |
| | 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 | 13,526 | 78.75% | 0 | 1,576 | 0 | 2,044 | 11.90% | 0 | 30 | 0 |
| July | 14,136 | 79.11% | 0 | 1,296 | 0 | 2,400 | 13.43% | 0 | 37 | 0 |
| August | 14,030 | 79.90% | 0 | 1,445 | 0 | 2,067 | 11.77% | 0 | 18 | 0 |
| September | 12,844 | 79.85% | 0 | 1,301 | 0 | 1,925 | 11.97% | 0 | 15 | 0 |
| October | 13,033 | 78.18% | 0 | 1,322 | 0 | 2,282 | 13.69% | 0 | 34 | 0 |
| November | 11,499 | 78.12% | 0 | 1,091 | 0 | 2,088 | 14.18% | 0 | 42 | 0 |
| December | 13,533 | 78.72% | 0 | 1,334 | 0 | 2,310 | 13.44% | 0 | 15 | 0 |
| YTD | 163,454 | | 0 | 16,160 | 0 | 26,952 | | 0 | 367 | 0 |
| MON AVG | 13,621 | 79.51% | 0 | 1,347 | 0 | 2,246 | 13.12% | 0 | 31 | 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 E9-1-1 Status Report

December 1, 2016 – December 31, 2016

TEXT TO 911 – CURRENT MONTH – DECEMBER 2016

NOTE:

- Hawaii County deployed a soft launch of Text to 911 on February 1, 2016.
- 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.
- In a press conference on October 13, 2016, an official announcement was made by the Governor of the State of Hawaii introducing “TEXT TO 911” as an emergency public service now available in the State of Hawaii.

| 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 | 22 | 6 |
| July | 22 | 1 |
| August | 16 | 0 |
| September | 20 | 1 |
| October | 21 | 1 |
| November | 18 | 2 |
| December | 43 | 1 |
| YTD | 293 | 50 |
| Monthly Avg. | 24.42 | 4.17 |

- 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.

Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016

WIRELESS PSAP TESTING – DECEMBER 2016

| HAWAII COUNTY - DECEMBER 2016 | | | | | | |
|-------------------------------|------|--------------|----------------|-------------|----------------|-----------|
| Date | WSP | Sites Tested | Sectors Tested | Tested By: | Test Pass/Fail | Comments: |
| 12/02/16 | AT&T | 1 | 1 | Hawaii PSAP | Pass | |
| 12/09/16 | AT&T | 1 | 6 | Hawaii PSAP | Pass | |
| | | | | | | |

NOTES:

- There were two (2) scheduled Wireless 911 Tests for the month of December 2016.

WIRELESS PSAP TESTING – YEARLY TOTALS 2016

| HAWAII COUNTY - 2016 | | | | | | |
|---|---------|--------------|----------------|-------------|----------------|------------------------------|
| WIRELESS 911 PSAP TESTING TOTALS 2016 | WSP | Sites Tested | Sectors Tested | Tested By: | Test Pass/Fail | Comments: |
| | AT&T | 9 | 29 | Hawaii PSAP | Pass | 2 sectors failed/rescheduled |
| | SPRINT | 1 | 4 | Hawaii PSAP | Pass | |
| | VERIZON | 61 | 180 | Hawaii PSAP | Pass | 6 sectors rescheduled |
| | Total | 71 | 213 | | | |

NOTES:

The Hawaii County PSAP tested a total of 71 cell tower sites and 213 cell sectors in 2016.

FOR YOUR INFORMATION

A “911 Wireless Testing Holiday Blackout” will be in effect starting on December 11th, 2016 until January 3rd, 2017 for Kauai PD, Maui PD, Molokai PD, and the Honolulu PD PSAPs. Hawaii County PD PSAP extends their blackout until January 17th, 2017 due to new PSAP equipment installation.

Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016

2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – DECEMBER 2016

| HAWAII COUNTY | 9-1-1 TRANSACTIONS | | | | | | | | |
|------------------|--------------------|----------|---------------|------------|----------|---------------------------------|--------|---------|-----------------------------------|
| | Total | MSAG | ALI Submitted | | | Open ALI Discrepancy Records | | | Customer Addresses Affected |
| | | MSAG (A) | TN CR (B) | ALI DR (C) | VoIP (D) | TNCR | ALI DR | VoIP DR | |
| 2016 | | | | | | | | | |
| 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 | 160 | 29 | 129 | 2 | 0 | 630 | 2 | 0 | 2,162 |
| JULY | 278 | 60 | 215 | 3 | 0 | 358 | 3 | 0 | 1,550 |
| AUGUST | 308 | 80 | 226 | 2 | 0 | 326 | 3 | 0 | 461 |
| SEPTEMBER | 479 | 50 | 428 | 1 | 0 | 274 | 3 | 0 | 581 |
| OCTOBER | 374 | 17 | 356 | 1 | 0 | 265 | 1 | 0 | 365 |
| NOVEMBER | 406 | 18 | 388 | 0 | 0 | 282 | 1 | 0 | 370 |
| DECEMBER | 241 | 27 | 211 | 3 | 0 | 288 | 1 | 0 | 232 |
| TOTAL YTD | 3,599 | 634 | 2,930 | 33 | 2 | | | | 8,288 |
| AVG PER MONTH | 300 | 53 | 244 | 3 | 0 | | | | 691 |

Definitions

- (A) **Master Street Address Guide** - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.
- (B) **Telephone Number Change Request** - Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 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.

Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016

MSAG CURRENT MONTH NOTES:

A total of **241** MSAG transactions were processed in 9-1-1 Net during the month of December 2016. **27** 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 **232** customer ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

211 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 and the Dispatchable Location Project. ESN 299 TN CRs must be validated against HT records and approved by the end user Hawaiian Telcom customer before updating the ALI record. No ALI DR's were submitted in 9-1-1 Net this month.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are 288 Open TN CR Transactions as of December 31, 2016.**
- **Refer to chart in the next section "TNCR Current Status"**

288 Open TN CR transactions are a direct result of the ESN 299 clean-up and are awaiting approval from Hawaiian Telcom, Inc. Once a telephone number is submitted to West for correction, it is verified against HT records and/or by the customer. West's internal process requires calling each telephone customer individually for verification to update an address in the 9-1-1 database. Akimeka continues to monitor and track the progress of the remaining 282 Referred records.

- **There is one (1) Open ALI-DR as of December 31, 2016**

One Open ALI DR was submitted in July 2016 for a business in Kailua Kona. Akimeka will continue to monitor this discrepancy until it is updated.

Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016

TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – DECEMBER 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 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 | 288 | 124 | 132 | 32 |

| STATUS |
|--|
| <u>TOTAL TNCRs SUBMITTED</u> - The total number of TNCR requests for modification that have been submitted in 9-1-1 |
| <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 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. |

Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016

DISPATCHABLE LOCATION – STATUS AS OF – DECEMBER 2016

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. There were a total of **1,121** Dispatchable Locations processed in 2016.

| Dispatchable Location | | | | |
|------------------------|------------------------------------|--------------|--|------------------------------------|
| Common Name Place | MSAG Address | 2016 | Number of TNCR* Transactions Submitted | Number of Transactions Processed** |
| KINGS SHOPS | CARRY OVER | 2015 | 75 | 0 |
| KINGS SHOPS | 690250 WAIKOLOA BEACH DR, WAIKOLOA | Jan- July | 125 | 197 |
| MAUNA LANI SHOPS | 681330 MAUNA LANI DR, KAMUELA | | | |
| QUEENS MARKETPLACE | 690201 WAIKOLOA BEACH DR, WAIKOLOA | Aug | 88 | 88 |
| MAUNA LANI SHOPS | 681330 MAUNA LANI DR, KAMUELA | | 59 | 59 |
| HILTON WAIKOLOA RESORT | 690425 WAIKOLOA BEACH DR, WAIKOLOA | Sept- Nov | 617 | 620 |
| KUHIO PLAZA | 111 E PUAINAKO ST, HILO | Dec | 49 | 49 |
| KUHIO PLAZA | 111 E PUAINAKO ST, HILO | | 30 | 30 |
| ALII VILLAS | 756016 ALII DR, KAILUA KONA | | 47 | 47 |
| KONA COMMONS | MAKALA BLVD, KAILUA KONA | | 31 | 31 |
| KONA MAKAI | 756026 ALII DR, KAILUA KONA | Total | 1,121 | 1,121 |
| | | | | |

| 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. |

Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016

CHARTER COMMUNICATIONS (TIME WARNER) VOIP DATABASE TNCR

Akimeka received Automatic Location Identification (ALI) records from Charter Communications (formally known as Time Warner) which is the predominant Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka had access to these ALI Records, Akimeka was able to perform a three way comparison. This comparison is a validation of the ALI Record to ensure the location as provided by the VoIP provider matches the GIS Information utilized by the Public Safety Agencies within their specific County 9-1-1 Service Area. This validation reduces the potential of address or location dispute during a 9-1-1 call.

The Analysis of the database records indicated there were invalid MSAG addresses utilized by the VoIP Provider, however, the majority of these records were corrected, or sent back to Charter for further location clarifications. Akimeka was able to verify the majority of the VoIP records had a valid MSAG address assigned and matched with the GIS information. Akimeka has also initiated a correction process with Charter Communications on behalf of the PSAPs in order to perform timely corrections to the remaining VoIP 9-1-1 Records, and to ensure new VoIP customers receive valid MSAG addresses to improve their 9-1-1 location service.

| Charter Communications 9-1-1 Telephone Number Location Change Request (Telephone Number Change Request (TNCR) Status) | | | |
|--|---|---|---|
| PSAP | TOTAL RECORDS SUBMITTED BY CHARTER (A) | RECORDS REQUIRING FURTHER INFORMATION BY CHARTER (B) | RECORDS CORRECTED AND RETURNED TO CHARTER BY AKIMEKA (C) |
| HAWAII County | 19,135 | 5 | 33 |
| KAUAI County | 7,911 | 7 | 39 |
| MAUI County | 15,629 | 0 | 7 |
| OAHU Civilian | 82,256 | 5 | 66 |
| TOTAL | 124,931 | 17 | 145 |

| | |
|------------|---|
| (A) | VoIP Database records submitted by Charter to Akimeka for research and MSAG address validation. |
| (B) | Akimeka was not able to determine an MSAG valid address with the information provided. Charter is advised to contact customer and provide Akimeka with a TMK or driving directions. |
| (C) | Akimeka researched and provided Charter with an MSAG valid address. |

Hawaii County E9-1-1 Status Report

December 1, 2016 – December 31, 2016

3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – DECEMBER 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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Address Points | 12/28/2016 | | Spatially corrected one hundred forty-six (146) address points in Hilo. |
| | 12/23/2016 | | Added location name to two (2) address points (3196 and 3551 Kanoelehua Ave) in Hilo. |
| | 12/23/2016 | | Spatially corrected thirty-four (34) address points in Hilo. |
| | 12/22/2016 | | Deleted twenty (20) address points in Keaau. |
| | 12/21/2016 | | Added location name to one (1) address point (800 Stainback Hwy) in Hilo. |
| | 12/21/2016 | | Spatially corrected eighty-eight (88) address points in Hilo. |
| | | 12/20/16 | |
| | 12/20/2016 | | Corrected address to ten (10) address points in Mountain View. |
| | 12/20/2016 | | Spatially corrected twenty-seven (27) address points in Mountain View. |
| | 12/20/2016 | | Spatially corrected seventy-nine (79) address points in Papaikou. |
| | 12/19/2016 | | Completed monthly update on address points. |
| | 12/16/2016 | | Added twenty-three (23) address points in Captain Cook. |
| | 12/16/2016 | | Added seven (7) address points in Hilo. |
| | 12/16/2016 | | Added two (2) address points (755287 Mamalahoa Hwy and 755766 Mamalahoa Hwy) in Holualoa. |
| | 12/16/2016 | | Added one (1) address point (472645 Haukoi Pl) in Honokaa. |
| | 12/16/2016 | | Added thirteen (13) address points in Kailua Kona. |
| | 12/16/2016 | | Added two (2) address points (681325 S Kaniku Dr and 681325 S Kaniku Dr) in Kamuela. |
| | 12/16/2016 | | Added two (2) address points (524477 Akoni Pule Hwy and 581396 Kaiholena Pl) in Kapaau. |
| | 12/16/2016 | | Added ten (10) address points in Keaau. |
| | 12/16/2016 | | Added one (1) address point (778026 Moolio Pl) in Keauhou. |
| | 12/16/2016 | | Added eleven (11) address points in Kurtistown. |
| | 12/16/2016 | | Added seven (7) address points in Mountain View. |
| | 12/16/2016 | | Added four (4) address points in Naalehu. |
| | 12/16/2016 | | Added seven (7) address points in Ocean View. |
| | 12/16/2016 | | Added nine (9) address points in Pahoa. |
| | 12/16/2016 | | Added one (1) address point (270598 Alakahi Pl) in Pepeekeo. |
| | 12/16/2016 | | Added eight (8) address points in Volcano. |
| | 12/16/2016 | | Added one (1) address point (683668 Haena Pl) in Waikoloa. |
| | 12/15/2016 | | Corrected address to three (3) address points (472603 Haukoi Pl, 472612 Haukoi Pl and 472623 Haukoi Pl) in Honokaa. |

Hawaii County E9-1-1 Status Report

December 1, 2016 – December 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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Address Points | 12/12/2016 | | Corrected address to one (1) address point (116 Pakele Ln) in Hilo |
| | 12/12/2016 | | Corrected address to one (1) address point (292658 Kaiwika Homestead Rd) in Hakalau. |
| | 12/12/2016 | | Spatially corrected fifty-seven (57) address points in Honokaa. |
| | | 12/06/16 | |
| 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 | | | |
| Fire Stations | | | |
| Food & Beverage | | | |
| Gas Stations | | | |
| Gate Codes | | | |
| Government Buildings | | | |
| Harbors | | | |
| Helipads | | | |
| Hiking Trails | | | |
| Hospitals | | | |
| Hydrants | | | |
| Hyrdology Lavers | | | |

Hawaii County E9-1-1 Status Report

December 1, 2016 – December 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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| 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 | | | |
| Points of Interest | 12/28/2016 | | Spatially corrected two (2) points of interest (Berean Bible Church Lama St and Tenrikyo Hilo Church) in Hilo. |
| | 12/23/2016 | | Added two (2) points of interest (Hawaii Community Correctional Center and UHH College of Agriculture Farm) in Hilo. |
| | | 12/20/16 | |
| | 12/12/2016 | | Spatially corrected one (1) point of interest (E Ala Ike) in Honokaa. |
| | | 12/06/16 | |
| Police Beats | | | |
| Police Districts | | | |
| Police Response Areas | | | |
| Police Stations | | | |
| Post Offices | | | |
| Schools | | | |
| Street Centerlines | 12/23/2016 | | Spatially corrected twenty-six (26) street segments in Mountain View. |
| | 12/22/2016 | | Added fourteen (14) streets in Honaunau. |
| | 12/22/2016 | | Corrected one-way to three (3) segments of Honaunau Beach Rd in Honaunau. |

Hawaii County E9-1-1 Status Report

December 1, 2016 – December 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 Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Street Centerlines | 12/22/2016 | | Spatially corrected seventeen (17) street segments in Honaunau. |
| | 12/22/2016 | | Split six (6) streets in Honaunau. |
| | 12/22/2016 | | Split three (3) streets in Captain Cook. |
| | | 12/20/16 | |
| | 12/20/2016 | | Corrected name to two (2) street segments of Mau Loa Rd in Mountain View. |
| | 12/19/2016 | | Corrected range to six (6) street segments in Volcano. |
| | 12/19/2016 | | Deleted thirty-six (36) street segments in Volcano. |
| | 12/19/2016 | | Completed monthly update on street centerlines. |
| | 12/15/2016 | | Corrected range to one (1) segment of Komohana St in Hilo. |
| | 12/15/2016 | | Spatially corrected one (1) segment of Komohana St in Hilo. |
| | 12/15/2016 | | Added one (1) segment of Komohana St in Hilo. |
| | 12/15/2016 | | Added one (1) segment of Merner Dr in Holualoa. |
| | 12/15/2016 | | Split one (1) segment of Mamalahoa Hwy in Holualoa. |
| | 12/15/2016 | | Added one (1) segment of Haukoi Pl in Honokaa. |
| | 12/15/2016 | | Split one (1) segment of Honokaa Waipio Rd in Honokaa. |
| | 12/7/2016 | | Corrected range to one (1) segment of Old Government Mauka Rd in Holualoa. |
| | 12/7/2016 | | Spatially corrected fourteen (14) street segments in Holualoa. |
| | 12/7/2016 | | Split one (1) segment of Old Government Mauka Rd in Holualoa. |
| | 12/7/2016 | | Deleted one (1) segment of Old Government Mauka Rd in Holualoa. |
| | | 12/06/16 | |
| Subdivisions | | | |
| Tow Jurisdictions | | | |
| Tsunami Evacuation Zones | | | |
| Tsunami Heights | | | |
| Waste Water Plants | | | |

Hawaii County E9-1-1 Status Report

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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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| WSP Cell Sectors | 12/21/2016 | | Per VZW CRS |
| | | 12/20/16 | |
| | 12/19/2016 | | Per AT&T CRS |
| | 12/15/2016 | | Per VZW CRS |
| | 12/14/2016 | | Per AT&T CRS |
| | | 12/06/16 | |
| | 12/6/2016 | | Per AT&T CRS |
| WSP Cell Towers | 12/21/2016 | | Per VZW CRS |
| | | 12/20/16 | |
| | 12/19/2016 | | Per AT&T CRS |
| | 12/15/2016 | | Per VZW CRS |
| | 12/14/2016 | | Per AT&T CRS |
| | | 12/06/16 | |
| | 12/6/2016 | | Per AT&T CRS |

GIS Summary for 2016

| HAWAII COUNTY | | |
|--|--------|---|
| Type of Layer | Totals | Remarks |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE | | |
| Address Points | 24,477 | Approximate number of new and/or edited *Address Points added to the Hawaii County GIS map and database in 2016. |
| Street Centerlines | 2,302 | Approximate number of new and/or edited *Street Centerlines added to the Hawaii County GIS map and database in 2016. |
| Points of Interest | 1,200 | Approximate number of new and/or edited *Points of Interest/Common Name Places added to the Hawaii County GIS map and database in 2016. |

* Specific details available upon request.

Note:

The above summary does not capture the entire GIS effort for the 2016 year, only a list of some of the more critical layer updates. There were a significant amount of updates that took place with other layers such as response layers, and other supporting GIS information. Also, for a summary regarding wireless updates, please refer to the CRS sections to see the 2016 year totals, which are also largely impacting to the PSAPs

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GEOGRAPHIC INFORMATION SYSTEM (GIS) NARRATIVES

GIS KEY ACTIVITIES/UPDATES

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

| Date | Key Activities/Updates |
|------------|---|
| 12/20/2016 | Spillman deliverable which included the following updated layers: Address Points, Cell Sectors, Common Names Alt Table, Display Streets, Points of Interest, POI Alt Names, Street Centerlines, Street Alt Names, Street Routes |
| 12/7/2016 | MapFlex deliverable which included the following updated layers: Address Points, Cell Sectors, Cell Towers, Points of Interest, and Street Centerlines. |
| 12/6/2016 | Spillman deliverable which included the following updated layers: Address Points, Cell Sectors, Common Names Alt Table, Display Streets, Points of Interest, POI Alt Names, Street Centerlines, Street Alt Names, Street Routes |

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 **December 19, 2016**. Results are as follows:

| HAWAII COUNTY | Address Points Layer | Street Centerlines Layer |
|-------------------------------|----------------------|--------------------------|
| New Addresses Added | 109 | |
| Addresses Removed | 0 | |
| Address Street Name Changes | 0 | |
| Address Street Number Changes | 0 | |
| New Street Segments Added | | 2 |
| Street Segments Removed | | 0 |
| Street Segment Range Changes | | 0 |
| Street Segment Name Changes | | 0 |

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.

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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.

1. 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 August 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.
 - g. During the month of September 2016, Akimeka began creating a series of large-scale maps to illustrate in detail the police beat boundaries. The maps are anticipated to be completed during October 2016, at which time they will be made available for examination by the Hawaii Police Department for accuracy.
 - h. During the month of October 2016, Akimeka created the first draft of a series of seventy-seven large-scale maps – one map for each police beat as well as one map of the entire county. Besides police beat boundaries, streets, and aerial imagery, the maps also contain points of interest that are referenced within the written descriptions of the Hawaii

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Police Beat Boundaries, as well as other important features such as high schools, colleges, and major attractions so that the maps will be easier to validate the accuracy of. After reviewing the maps, Akimeka recognized enhancements that could be made to them to further their value as a communication device so that a more thorough review process can take place, which will ultimately result in greater informed decision making in regards to boundary and written description revisions.

- i. During the month of December 2016, Akimeka proposed boundary modifications to Police Beats 148, 430, and 435 to the Hawaii Police Department. The proposed boundary modifications would have the affected beats intersect between the new Daniel K Inouye Hwy and Mile Marker 43, rather than the southern boundary of the Kilohana Girl Scout Camp. To help illustrate the boundary modifications, Akimeka sent the Hawaii Police Department a map detailing the current and proposed boundaries of the area that would be affected by the change. The Hawaii Police Department notified Akimeka that such a change would require a process of reviews and proposals. Akimeka is now awaiting the results of this process, at which time the final drafts of the Police Beat Maps will be completed and ready for examination.

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.
 - e. During the month of August 2016, there was significant coordination done between Akimeka and Spillman Technologies to get an initial GIS dataset ready for configuration.

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- i. There was a slight delay in getting a connection to the Hawaii County server during the beginning of August but was quickly remediated. In the meantime while, Spillman was on-site getting server connections set up, Akimeka was preparing the GIS data for the CAD system. Several preparation took place and included a variety of QA items to ensure the best possible data to be configured.
- ii. On August 24, 2016, Akimeka uploaded an initial GIS dataset containing the core data, meaning the functional data that makes the system work. The display layers intended to perform labeling, set up different symbols, and establish the basemaps will come after the initial data has been given the go ahead.
- iii. On August 29, 2016, Spillman Technologies followed up with Akimeka to let them know the data looked good on their end. They ran testing on addresses, common places, and mile markers and all were good.
- iv. On August 30, 2016, Akimeka was on-site to meet with the Hawaii Police Department and Spillman Technologies. Akimeka, along with the supervisors of the Hawaii Police 911 Center, observed during a Spillman Cad Mapping demonstration that the initial base GIS layers that were provided by Akimeka were installed and functioning flawlessly with no issues. CAD project proceeding as planned. Previous issues regarding the 911 GIS layers for the Hawaii Fire Department were discussed and resolved. Spillman Technologies will be reaching out to the Hawaii Fire Department personnel regarding data input into the Spillman CAD System. This information was conveyed to the Hawaii Fire Department representative along with the Hawaii County Information Technology Manager during a separate meeting that Akimeka and Hawaii Police Department attended at the Hawaii County ITD office.
- v. During the month of September, Akimeka continued with routing deliverables for the Spillman CAD system. One deliverable during the beginning of September included 45 display layers to be used for making the pin maps more aesthetically pleasing and useful for the dispatchers.
- vi. During the month of October, Hawaii County Police and Fire, Akimeka, and Spillman was on-site for the mock Go-Live.
 1. The on-site meetings were a success and Akimeka and Spillman worked together to provide some enhancements to the mapping, such as hillshades to provide some terrain features in the mapping.
 2. Spillman rolled out their new mapping display which was well received by Hawaii County.
 3. Akimeka met with Hawaii Fire to go over the First In boundaries and agreed to make some slight modifications to include third, fourth, and fifth level responses, which will be a follow on item to work on.
 4. There were some records that needed some updating and Akimeka took this as an action item.
- vii. Throughout the remainder of October 2016, Akimeka and Spillman continued to work together to ensure the project is successful.
 1. Akimeka provided several addition GIS updates, which included new Water Response Areas for Police, Fire, and Medics. In addition, several deliverables that included new Common Names and updates as well.
- viii. During the month of November 2016, Akimeka created a new layer to be used in the Spillman CAD. This new layer, *Fire EMS Zone*, replaces the layer *First In*, and is configured to provide enhanced labeling.
- ix. Throughout the month of December 2016, Akimeka continued to deliver data for the Spillman project on a bi-weekly basis.
- x. In January 2017, Akimeka and Spillman will be implementing a new GIS delivery process where the geodatabase is directly updated, thereby cutting out some unnecessary steps on the pre-processing CAD side making this a more efficient and accurate process.

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COMMON NAMES UPDATE

In September 2016, Akimeka was provided a spreadsheet by the Hawaii Fire Department of common names that they wished to be included in the Spillman Technologies CAD system. Akimeka immediately reviewed the spreadsheet and developed a strategy and timeline for ensuring that all the common names on the spreadsheet be included in the GIS data that is used in their Spillman Technologies CAD and MapFlex systems.

1. In late September 2016, Akimeka received, and immediately reviewed, a spreadsheet by the Hawaii Fire Department of common names that they would like included in their Spillman CAD system. The spreadsheet contains a list of four hundred eighteen multi-family residential complexes, most of which are apartment, condominium, and townhouse complexes.
 - a. Akimeka developed a strategy for completing this large update, which includes a timeline whereby thirty of the updates will be completed before the Spillman CAD go-live date, which takes place in the first week of October 2016, followed by a minimum of fifty updates for each of the subsequent Spillman CAD updates taking place every two weeks. At that projected rate, the updates will be completed in January 2017.
 - b. During the month of October 2016, Akimeka kept the projected pace to be completed with the multi-family residential complexes updates in January 2017.
 - c. During the month of November 2016, Akimeka kept the projected pace to be completed with the multi-family residential complexes updates in January 2017.
 - d. During the month of December 2016, Akimeka kept the projected pace to be completed with the multi-family residential complexes updates in January 2017.

MAPFLEX SYSTEM

During the month of December 2016, the MapFlex system received some updates but not part of the normal upload processes as a result of MapFlex having several issues.

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

During the month of December 2016, there was only one GIS deliverable made to MapFlex. Due to the issues MapFlex is having regarding the automatic updates, all of the PSAPs had agreed to hold on all GIS updates until West has made the necessary system changes.

1. Akimeka delivered GIS data to the MapFlex system on the following date in December 2016
 - a. **Hawaii County** – December 9, 2016
 - b. **Maui County** – December 9, 2016
 - c. **Kauai County** – December 9, 2016
 - d. **Honolulu** – December 9, 2016
2. Although there were no official confirmation that the manual updates were completed, Akimeka confirmed on December 20th that the GIS data was successfully updated in the MapFlex system.

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MAPFLEX ISSUE

During the month of August 2016, there were some identified issues regarding the MapFlex system, some of which were a continuation of previous issues identified.

On August 3, 2016, during the all PSAP conference call with West, Akimeka, and Hawaiian Telcom also in attendance, there were several issues that were discussed.

1. There was an upload issue with the Kauai MapFlex system on July 24, 2016 which was related to an issue which Maui PD experienced earlier in the year. The MapFlex screen went blank and there was no mapping capability.
 - a. West relayed that there is an issue with the automatic update script and there are updates required for them to make to the system.
 - b. All of the PSAPs agreed to hold off on all GIS updates in MapFlex until West has resolved the issue.
2. The MapFlex system began displaying wireless information incorrectly during the month of August 2016.
 - a. The issue described is that when wireless calls are coming into the PSAPs, the ALI information appears to be correct and it matches with the GIS data, so it subsequently displays a Phase I location for Phase I calls. What is occurring directly after this, is the MapFlex system is doing a reverse query for additional information in the GIS and this is overriding the ALI information with the closest address in the GIS.
 - b. West and HT are looking into the issue and are planning a software update that should help resolve the issue.
3. The Text-to-911 icons have stopped displaying at the PSAPs.
 - a. It was identified that the icons for text calls have stopped displaying in the MapFlex maps. Previously when calls came in as a text call, there would be an icon displaying "TEXT" where the call was plotted.
 - b. West and HT will be researching the issue.
4. Throughout October 2016 West and HT continued to work on the patches to fix some of the above issues.
5. During November 2016, the updates were installed on the MapFlex systems throughout the State of Hawaii.
 - a. After the updates had taken place, issues were identified with the display of Phase I coverage areas in MapFlex – identified by the Honolulu Fire Department. In addition, the only information that was being displayed for Phase I calls were Lat/Longs with a static coverage of approximately 330 meters for all calls. The issue was first identified when calls had plotted in the ocean, while the caller was surely on land.
 - b. The issue was brought to West and HT's attention for resolution.
 - c. West had worked internally with their team and determined that it was an issue with the confidence with Sprint wireless and that Sprint was the source of the issue in MapFlex.
 - d. The discussions on this issue circled for some time throughout November without resolution until it was discovered later in November that the reason the coverage area was not being displayed was due to the MapFlex upgrade that was installed. After installation, the configurations for Wireless Phase I were not set up properly by West, in which the mapping did not point to the correct information in MapFlex.
 - e. The additional issue with MapFlex plotting the centroid of the sector as the tower location still remains and is being troubleshooted by West and HT.
 - f. West and HT will be following up with the PSAPs with a resolution in December 2016.
 - g. The next conference call with West, HawaiianTel, and the PSAPs is scheduled for January 11th.

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4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS – DECEMBER 2016

| # | Date | Ticket # | Description | PSAP | Urgency | Comments |
|---|----------|----------|-----------------|------|---------|--|
| 1 | 07/13/16 | 856 | Updated Address | FIRE | Normal | TN has been referred to telco via email by West Safety Services (Intrado). RMS |
| 2 | | | | | | |
| 3 | | | | | | |

Note* There is one (1) opened service request pending for December 2016.

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

| HAWAII COUNTY | | | | MSAG SERVICE REQUEST CATEGORIES | | | | | |
|-----------------|-----------|-----------|----------|---------------------------------|-----------|----------|----------|----------|----------|
| 2016 | TOTAL | | Open | WIRELINE | | WIRELESS | | VoIP | |
| | Created | Closed | | 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 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 |
| July | 3 | 2 | 3 | 3 | 2 | 0 | 0 | 0 | 0 |
| August | 2 | 2 | 3 | 2 | 2 | 0 | 0 | 0 | 0 |
| September | 1 | 1 | 3 | 1 | 1 | 0 | 0 | 0 | 0 |
| October | 1 | 3 | 1 | 1 | 3 | 0 | 0 | 0 | 0 |
| November | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| December | 3 | 3 | 1 | 3 | 3 | 0 | 0 | 0 | 0 |
| TOTAL | 35 | 37 | 1 | 33 | 33 | 0 | 1 | 2 | 3 |

Note:

* 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.

| Definitions: | Category | Description |
|---------------------|----------|---|
| | Wireline | Telephone Number (ALI) Discrepancies from land line phones that have been submitted to West Safety Services via 9-1-1 Net for correction. |
| | 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 |

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5. E9-1-1 DATABASE SYNCHRONIZATION

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

Next Scheduled Database Synchronization – February 2017

AUDIT SUMMARY RESULTS – FEBRUARY 2017 -- TBA

AUDIT SUMMARY RESULTS COMPARISON –FEBRUARY 1, 2017 VS NOVEMBER 1, 2016 -- TBA

AUDIT SUMMARY RESULTS – TBA

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

AUTOMATIC LOCATION IDENTIFICATION (ALI) DISCREPANCY REPORT -- TBA

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1. PSAP OPERATIONS

9-1-1 CALL VOLUME – DECEMBER 2016

(Source: West Safety Services Viper system)

| 9-1-1 Call Volume | | | | | | | | | | | | | | | | | |
|-------------------|-----------------------------|-----------------------|------------------|-----------------------|------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|------------------|--------------------|------------------|------------------------|------------------|-------------|------------------|
| KAUAI PSAP | | 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 | % 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 | % of Total Calls |
| Dec | 4,103 | 700 | 17.06% | 2,631 | 64.12% | 43.03% | 56.97% | 128 | 3.12% | 6 | 0.15% | 0 | 0.00% | 638 | 15.55% | 0 | 0.00% |

9-1-1 CALL VOLUME – CALENDAR YEAR 2016

| 9-1-1 Call Volume | | | | | | | | | | | | | | | | | |
|-------------------|-----------------------------|-----------------------|------------------|-----------------------|------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|------------------|--------------------|------------------|------------------------|------------------|-------------|------------------|
| KAUAI PSAP | | 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 | % 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 | % 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 | 4,020 | 605 | 15.05% | 2,681 | 66.69% | 42.15% | 57.85% | 129 | 3.21% | 10 | 0.25% | 0 | 0.00% | 595 | 14.80% | 0 | 0.00% |
| JULY | 4,757 | 697 | 14.65% | 3,194 | 67.14% | 45.77% | 54.23% | 144 | 3.03% | 11 | 0.23% | 0 | 0.00% | 711 | 14.95% | 0 | 0.00% |
| AUG | 4,386 | 687 | 15.66% | 2,926 | 66.71% | 41.66% | 58.34% | 162 | 3.69% | 10 | 0.23% | 0 | 0.00% | 601 | 13.70% | 0 | 0.00% |
| SEPT | 4,105 | 585 | 14.25% | 2,677 | 65.21% | 45.05% | 54.95% | 159 | 3.87% | 13 | 0.32% | 0 | 0.00% | 671 | 16.35% | 0 | 0.00% |
| OCT | 3,949 | 589 | 14.92% | 2,624 | 66.45% | 42.72% | 57.28% | 174 | 4.41% | 6 | 0.15% | 0 | 0.00% | 556 | 14.08% | 0 | 0.00% |
| NOV | 4,002 | 672 | 16.79% | 2,562 | 64.02% | 43.29% | 56.71% | 150 | 3.75% | 5 | 0.12% | 0 | 0.00% | 613 | 15.32% | 0 | 0.00% |
| DEC | 4,103 | 700 | 17.06% | 2,631 | 64.12% | 43.03% | 56.97% | 128 | 3.12% | 6 | 0.15% | 0 | 0.00% | 638 | 15.55% | 0 | 0.00% |
| YTD | 50,955 | 7,776 | | 33,592 | | | | 1710 | | 123 | | 0 | | 7,754 | | 0 | |
| MON AVG | 4,246 | 648 | 15.26% | 2,799 | 65.91% | 44.61% | 55.39% | 143 | 3.37% | 10 | 0.24% | 0 | 0.00% | 646 | 15.21% | 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 0.15% - Statewide average = 0.15% Year 2016

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TEXT TO 911 – CURRENT MONTH – DECEMBER 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.
- In a press conference on October 13, 2016, an official announcement was made by the Governor of the State of Hawaii introducing “TEXT TO 911” as an emergency public service now available in the State of Hawaii.

| TEXT TO 911 Kauai County | |
|--------------------------|----------------|
| Month | Total received |
| January | 23 |
| February | 11 |
| March | 22 |
| April | 4 |
| May | 2 |
| June | 11 |
| July | 26 |
| August | 42 |
| September | 25 |
| October | 18 |
| November | 16 |
| December | 7 |
| YTD | 207 |
| Monthly Avg. | 17.3 |

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WIRELESS PSAP TESTING – DECEMBER 2016

| KAUAI COUNTY - DECEMBER 2016 | | | | | | |
|------------------------------|-----|--------------|----------------|------------|----------------|-----------|
| Date | WSP | Sites Tested | Sectors Tested | Tested By: | Test Pass/Fail | Comments: |
| None | | | | | | |
| | | | | | | |
| | | | | | | |

NOTES:

- There were no scheduled Wireless 911 tests for the month of December, 2106 for the Kauai PSAP.

WIRELESS PSAP TESTING – YEARLY TOTALS 2016

| KAUAI COUNTY - 2016 | | | | | | |
|---------------------------------------|---------|--------------|----------------|------------|----------------|------------------------------|
| WIRELESS 911 PSAP TESTING TOTALS 2016 | WSP | Sites Tested | Sectors Tested | Tested By: | Test Pass/Fail | Comments: |
| | AT&T | 1 | 3 | Kauai PSAP | Pass | |
| | SPRINT | 1 | 4 | Kauai PSAP | Pass | |
| | VERIZON | 17 | 49 | Kauai PSAP | Pass | 6 sectors failed/rescheduled |
| | Total | 19 | 56 | | | |

NOTES:

The Kauai County PSAP tested a total of 19 cell tower sites and 56 cell sectors in 2016.

FOR YOUR INFORMATION

A “911 Wireless Testing Holiday Blackout” will be in effect starting on December 11th, 2016 until January 3rd, 2017 for Kauai PD, Maui PD, Molokai PD, and the Honolulu PD PSAPs. Hawaii County PD PSAP extends their blackout until January 17th, 2017 due to new PSAP equipment installation.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – DECEMBER 2016

| KAUAI COUNTY | 9-1-1 TRANSACTIONS | | | | | | | | |
|-----------------|--------------------|----------|---------------|------------|----------|---------------------------------|--------|---------|-----------------------------------|
| | Total | MSAG | ALI Submitted | | | Open ALI Discrepancy Records | | | Customer Addresses Affected |
| | | MSAG (A) | TN CR (B) | ALI DR (C) | VoIP (D) | TNCR | ALI DR | VoIP DR | |
| 2016 | | | | | | | | | |
| 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 | 14 | 9 | 5 | 0 | 0 | 125 | 0 | 0 | 89 |
| JULY | 23 | 8 | 15 | 0 | 0 | 119 | 0 | 0 | 63 |
| AUGUST | 105 | 13 | 92 | 0 | 0 | 54 | 0 | 0 | 158 |
| SEPTEMBER | 9 | 8 | 0 | 0 | 1 | 44 | 0 | 0 | 11 |
| OCTOBER | 96 | 5 | 91 | 0 | 0 | 42 | 0 | 0 | 91 |
| NOVEMBER | *23 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 2 |
| DECEMBER | *102 | 5 | 1 | 0 | 0 | 38 | 0 | 0 | 16 |
| TOTAL YTD | 442 | 174 | 267 | 0 | 1 | | | | 666 |
| AVG PER MONTH | 40 | 15 | 22 | 0 | 0 | | | | 56 |

Definitions

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

(B) **Telephone Number Change Request** - Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 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.

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December 1, 2016 - December 31, 2016

MSAG CURRENT MONTH NOTES:

*A total of six (6) MSAG transactions were processed in 9-1-1 Net, and ninety six (96) Dispatchable Locations were prepared during the month of December 2016. All 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.

As of December 31, 2016 Akimeka has prepared 1,265 Dispatchable Location transactions for Kauai County.

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 West on the TN CRs that have been submitted for correction. There were three (3) ESN 499 TN CRs completed by West Safety Service in December 2016.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are 38 Open TN CR Transactions as of December 31, 2016.**
- **Please refer to “TNCR Current Status” chart in the next section.**

38 Open TN CR transactions are a direct result of the ESN 499 clean-up and are awaiting approval from Hawaiian Telcom, Inc. Akimeka continues to monitor and track the progress of the Referred records. Once a telephone number is submitted to West for correction, it must be verified against HT records and/or approved by the customer. West'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 December 31, 2016**
- **There are no Open VoIP DRs as of December 31, 2016**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – DECEMBER, 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 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 | 38 | 19 | 8 | 11 |

| STATUS |
|--|
| <u>TOTAL TNCRs SUBMITTED</u> - The total number of TNCR requests for modification that have been submitted in 9-1-1 |
| <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 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. |

Kauai County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

DISPATCHABLE LOCATION – STATUS AS OF – DECEMBER 2016 - PENDING

NARRATIVE:

During the August 2015 State of Hawaii 911 Board meeting, Akimeka provided a “State of Hawaii PSAPs Proposed ALI Compliance 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.

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 **1,265** telephone records are complete and ready for submittal, and transactions that were submitted in 2015 and 2016 are now being processed.

| 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 |
| *Common Name Place and MSAG Addresses available upon request | | Jan-Mar | 544 | 0 | 0 |
| | | Apr | 0 | 0 | 0 |
| | | May | 0 | 0 | 2 |
| Kukuiula Shopping Center | 2829 Ala Kalanikaumaka, Kukuiula | June | 87 | 0 | 56 |
| Kukui Grove Center | 302600 Kaumualii Hwy, Lihue | July- Oct | 74 | 44 | 26 |
| | | | 30 | 0 | 22 |
| | | | 125 | 0 | 0 |
| Halelani Village | 1970 Hanalima St, Puhi | Nov | 23 | 0 | 0 |
| Halelani Village | 1970 Hanalima St, Puhi | Dec | 25 | 0 | 0 |
| Lae Nani | 410 Papaloa Rd, Wailua | Dec | 53 | 0 | 0 |
| Lanikai Condos | 390 Papaloa Rd, Wailua | Dec | 18 | 0 | 0 |
| | | Total | 1,265 | 106 | 106 |

| 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 |
| TNCR* Telephone Number Change Request - Transactions submitted to WEST 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. |

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December 1, 2016 - December 31, 2016

CHARTER COMMUNICATIONS (TIME WARNER) VOIP DATABASE TNCR

Akimeka received Automatic Location Identification (ALI) records from Charter Communications (formally known as Time Warner) which is the predominant Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka had access to these ALI Records, Akimeka was able to perform a three way comparison. This comparison is a validation of the ALI Record to ensure the location as provided by the VoIP provider matches the GIS Information utilized by the Public Safety Agencies within their specific County 9-1-1 Service Area. This validation reduces the potential of address or location dispute during a 9-1-1 call.

The Analysis of the database records indicated there were invalid MSAG addresses utilized by the VoIP Provider, however, the majority of these records were corrected, or sent back to Charter for further location clarifications. Akimeka was able to verify the majority of the VoIP records had a valid MSAG address assigned and matched with the GIS information. Akimeka has also initiated a correction process with Charter Communications on behalf of the PSAPs in order to perform timely corrections to the remaining VoIP 9-1-1 Records, and to ensure new VoIP customers receive valid MSAG addresses to improve their 9-1-1 location service.

| Charter Communications 9-1-1 Telephone Number Location Change Request (Telephone Number Change Request (TNCR) Status) | | | |
|--|---|---|---|
| PSAP | TOTAL RECORDS SUBMITTED BY CHARTER (A) | RECORDS REQUIRING FURTHER INFORMATION BY CHARTER (B) | RECORDS CORRECTED AND RETURNED TO CHARTER BY AKIMEKA (C) |
| HAWAII County | 19,135 | 5 | 33 |
| KAUAI County | 7,911 | 7 | 39 |
| MAUI County | 15,629 | 0 | 7 |
| OAHU Civilian | 82,256 | 5 | 66 |
| TOTAL | 124,931 | 17 | 145 |

| | |
|------------|---|
| (A) | VoIP Database records submitted by Charter to Akimeka for research and MSAG address validation. |
| (B) | Akimeka was not able to determine an MSAG valid address with the information provided. Charter is advised to contact customer and provide Akimeka with a TMK or driving directions. |
| (C) | Akimeka researched and provided Charter with an MSAG valid address. |

Kauai County E9-1-1 Status Report

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3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – DECEMBER 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 GIS Delivered | Other/Remarks | |
| | Date Created/ Edits Performed | | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | | |
| Address Points | 12/30/2016 | | Added Location Name for one (1) address in Kukuiula | |
| | 12/30/2016 | | Added two (2) addresses in Princeville | |
| | 12/27/2016 | | Added Location Name to one (1) address in Hanapepe | |
| | 12/27/2016 | | Spatially corrected one (1) address point in Hanapepe | |
| | 12/27/2016 | | Added Location Name to one (1) address in Kalaheo | |
| | 12/27/2016 | | Added one (1) POI address in Kapaa | |
| | 12/27/2016 | | Added Location Name to one (1) address in Kapaa | |
| | 12/27/2016 | | Corrected one (1) address in Kapaa | |
| | 12/27/2016 | | Spatially corrected one (1) address point in Kapaa | |
| | 12/27/2016 | | Spatially corrected one (1) address point in Kapaia | |
| | 12/27/2016 | | Added four (4) POI addresses in Kipu | |
| | 12/27/2016 | | Added two (2) POI addresses in Koloa | |
| | 12/27/2016 | | Added one (1) address in Koloa | |
| | 12/27/2016 | | Added Location Name for one (1) address in Koloa | |
| | 12/27/2016 | | Corrected one (1) address in Koloa | |
| | 12/27/2016 | | Spatially corrected one (1) address point in Lihue | |
| | 12/27/2016 | | Added Location Name for one (1) address in Lihue | |
| | 12/27/2016 | | Added one (1) POI address in Lihue | |
| | 12/27/2016 | | Added one (1) address in Lihue | |
| | 12/27/2016 | | Spatially corrected one (1) address point in Pakala | |
| | 12/27/2016 | | Added one (1) POI address in Port Allen | |
| | 12/27/2016 | | Added five (5) POI addresses in Puhi | |
| | 12/27/2016 | | Added one (1) address in Puhi | |
| | 12/27/2016 | | Corrected one (1) address in Waimea | |
| | 12/27/2016 | | Added three (3) POI addresses in Wailua | |
| | 12/27/2016 | | Added one (1) address in Wailua | |
| | 12/27/2016 | | Spatially corrected two (2) address points in Wailua | |
| | 12/27/2016 | | Corrected one (1) address in Wailua | |
| | 12/27/2016 | | Corrected Location Name for one (1) address in Hanalei | |
| | 12/27/2016 | | Spatially corrected one (1) address point in Hanalei | |
| | | 12/22/16 | | |
| | | 12/9/2016 | | Spatially corrected one (1) address point in Hanapepe |

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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 | | | |
|--|----------------------------------|--------------------|--|
| Type of Layer | Akimeka GIS Server | Date GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Address Points | 12/9/2016 | | Added Location Name for one (1) address point in Hanapepe |
| | 12/9/2016 | | Spatially corrected one hundred twenty-two (122) address points in Kalaheo |
| | 12/9/2016 | | Added two (2) POI addresses in Kalaheo |
| | 12/8/2016 | | Spatially corrected fifty-five (55) address points in Kalaheo |
| | | 12/08/16 | |
| 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 | | | |
| Fire Stations | | | |
| Food & Beverage | | | |
| Gas Stations | | | |
| Gate Codes | | | |
| Government Buildings | | | |
| Harbors | | | |
| Helipads | | | |
| Hiking Trails | | | |
| Hospitals | | | |
| Hydrants | | | |

Kauai County E9-1-1 Status Report

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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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| 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 | | 12/28/16 | |
| | 12/28/2016 | | Removed outer islands for Spillman |
| Parks | | | |
| Parks Polygon | | | |
| Points of Interest | 12/27/2016 | | Corrected one (1) POI name in Hanalei |
| | 12/27/2016 | | Spatially corrected one (1) POI in Hanalei |
| | 12/27/2016 | | Corrected one (1) POI address in Hanapepe |
| | 12/27/2016 | | Added one (1) POI in Hanapepe |
| | 12/27/2016 | | Changed one (1) POI name in Kapaa |
| | 12/27/2016 | | Added one (1) POI in Kapaa |
| | 12/27/2016 | | Added four (4) POI in Kipu |
| | 12/27/2016 | | Added two (2) POI in Koloa |
| | 12/27/2016 | | Spatially corrected one (1) POI in Koloa |
| | 12/27/2016 | | Added one (1) POI in Kukuiula |
| | 12/27/2016 | | Added two (2) POI in Lihue |
| | 12/27/2016 | | Corrected one (1) POI address in Nawiliwili |
| | 12/27/2016 | | Added one (1) POI in Omao |
| | 12/27/2016 | | Spatially corrected one (1) POI in Pakala |

Kauai County E9-1-1 Status Report

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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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Points of Interest | 12/27/2016 | | Added one (1) POI in Port Allen |
| | 12/27/2016 | | Added five (5) POI in Puhi |
| | 12/27/2016 | | Corrected one (1) POI address in Wailua |
| | 12/27/2016 | | Corrected one (1) POI address in Waimea |
| | 12/27/2016 | | Spatially corrected two (2) POI in Puhi |
| | | 12/22/16 | |
| | 12/22/2016 | | Spatially corrected one (1) POI in Wailua |
| | 12/22/2016 | | Added two (2) POI in Wailua |
| | 12/9/2016 | | Added one (1) POI in Wailua |
| | 12/9/2016 | | Added one (1) POI in Kapaa |
| | 12/9/2016 | | Added one (1) POI in Hanapepe |
| | | 12/08/16 | |
| Police Beats | | | |
| Police Districts | | | |
| Police Response Areas | | | |
| Police Stations | | | |
| Post Offices | | | |
| Schools | | | |
| Street Centerlines | | | |
| | 12/22/2016 | | Spatially corrected twelve (12) street centerline segments in Kalaheo |
| | 12/8/2016 | | Spatially corrected nine (9) street centerline segments in Kalaheo |
| | | | |
| | | | |
| Subdivisions | | | |
| Tow Jurisdictions | | | |
| Tsunami Evacuation Zones | | | |
| Tsunami Heights | | | |
| Waste Water Plants | | | |
| WSP Cell Sectors | | | |
| | 12/19/2016 | | Per AT&T CRS |
| | 12/14/2016 | | Per AT&T CRS |
| | | | |

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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.

| KAUAI COUNTY | | | |
|--|----------------------------------|--------------------|---------------|
| Type of Layer | Akimeka GIS Server | Date GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| WSP Cell Towers | | | |
| | 12/19/2016 | | Per AT&T CRS |
| | 12/14/2016 | | Per AT&T CRS |
| | | | |

| GIS Summary for 2016 | | |
|--|--------|--|
| KAUAI COUNTY | | |
| Type of Layer | Totals | Remarks |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE | | |
| Address Points | 8,803 | Approximate number of new and/or edited *Address Points added to the Kauai County GIS map and database in 2016. |
| Street Centerlines | 593 | Approximate number of new and/or edited *Street Centerlines added to the Kauai County GIS map and database in 2016. |
| Points of Interest | 597 | Approximate number of new and/or edited *Points of Interest/Common Name Places added to the Kauai County GIS map and database in 2016. |

* Specific details available upon request.

NOTE:

The above summary does not capture the entire GIS effort for the 2016 year, only a list of some of the more critical layer updates. There were a significant amount of updates that took place with other layers such as response layers, and other supporting GIS information. Also, for a summary regarding wireless updates, please refer to the CRS sections to see the 2016 year totals, which are also largely impacting to the PSAPs.

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.

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GEOGRAPHIC INFORMATION SYSTEM (GIS) NARRATIVES

GIS KEY ACTIVITIES/UPDATES

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

| Date | Key Activities/Updates |
|------------|--|
| 12/28/2016 | Delivered Parcels for Spillman |
| 12/22/2016 | Delivered Address Points, Points of Interest, Street Centerlines, WSP Cell Sectors, WSP Cell Towers and GEO.xml for a GeoComm update. |
| 12/22/2016 | Delivered Address Points, Points Of Interest, Street Centerlines and WSP Cell Sectors for a Spillman update |
| 12/15/2016 | Delivered standard 10 beat Police Beats for Spillman |
| 12/8/2016 | Delivered Address Points, Points of Interest, Street Centerlines, WSP Cell Sectors, WSP Cell Towers and GEO.xml for a GeoComm update. |
| 12/8/2016 | Delivered Address Points, Fire Hydrants, Fire Response Areas, Medic Response Areas, Points of Interest, Police Response Areas, Street Centerlines, WSP Cell Sectors and WSP Cell Towers for a MapFlex update |
| 12/8/2016 | Delivered Address Points, Points Of Interest, Street Centerlines and WSP Cell Sectors for a Spillman update |
| 12/5/2016 | Delivered Judicial Districts for Spillman |

MAPFLEX SYSTEM

During the month of December 2016, the MapFlex system received one manual update as a result of MapFlex having several issues pertaining to the automated upload processes.

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

Due to the issues MapFlex is having regarding the automatic updates, all of the PSAPs had agreed to hold on all GIS updates until West has made the necessary system changes. Manual GIS uploads took place on December 9, 2016.

1. Akimeka delivered GIS data to the MapFlex system on the following dates in December 2016
 - a. **Hawaii County** – December 9, 2016
 - b. **Maui County** – December 9, 2016
 - c. **Kauai County** – December 9, 2016
 - d. **Honolulu** – December 9, 2016
2. Although there were no official confirmation that the manual updates were completed, Akimeka confirmed on December 20th that the GIS data was successfully updated in the MapFlex system.

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MAPFLEX ISSUES

During the month of August 2016, there were some identified issues regarding the MapFlex system, some of which were a continuation of previous issues identified.

On August 3, 2016, during the all PSAP conference call with West, Akimeka, and Hawaiian Telcom also in attendance, there were several issues that were discussed.

1. There was an upload issue with the Kauai MapFlex system on July 24, 2016 which was related to an issue which Maui PD experienced earlier in the year. The MapFlex screen went blank and there was no mapping capability.
 - a. West relayed that there is an issue with the automatic update script and there are updates required for them to make to the system.
 - b. All of the PSAPs agreed to hold off on all GIS updates in MapFlex until West has resolved the issue.
2. The MapFlex system began displaying wireless information incorrectly during the month of August 2016.
 - a. The issue described is that when wireless calls are coming into the PSAPs, the ALI information appears to be correct and it matches with the GIS data, so it subsequently displays a Phase I location for Phase I calls. What is occurring directly after this, is the MapFlex system is doing a reverse query for additional information in the GIS and this is overriding the ALI information with the closest address in the GIS.
 - b. West and HT are looking into the issue and are planning a software update that should help resolve the issue.
3. The Text-to-911 icons have stopped displaying at the PSAPs.
 - a. It was identified that the icons for text calls have stopped displaying in the MapFlex maps. Previously when calls came in as a text call, there would be an icon displaying "TEXT" where the call was plotted.
 - b. West and HT will be researching the issue.
4. Throughout October 2016 West and HT continued to work on the patches to fix some of the above issues.
5. During November 2016, the updates were installed on the MapFlex systems throughout the State of Hawaii.
 - a. After the updates had taken place, issues were identified with the display of Phase I coverage areas in MapFlex – identified by the Honolulu Fire Department. In addition, the only information that was being displayed for Phase I calls were Lat/Longs with a static coverage of approximately 330 meters for all calls. The issue was first identified when calls had plotted in the ocean, while the caller was surely on land.
 - b. The issue was brought to West and HT's attention for resolution.
 - c. West had worked internally with their team and determined that it was an issue with the confidence with Sprint wireless and that Sprint was the source of the issue in MapFlex.
 - d. The discussions on this issue circled for some time throughout November without resolution until it was discovered later in November that the reason the coverage area was not being displayed was due to the MapFlex upgrade that was installed. After installation, the configurations for Wireless Phase I were not set up properly by West, in which the mapping did not point to the correct information in MapFlex.
 - e. The additional issue with MapFlex plotting the centroid of the sector as the tower location still remains and is being troubleshooted by West and HT.
 - f. West and HT will be following up with the PSAPs with a resolution in December 2016.
 - g. The next conference call with West, HawaiianTel, and the PSAPs is scheduled for January 11th.

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SPILLMAN PROJECT

Kauai County is moving forward with the implementation of their new Spillman Technologies CAD system and there has been some significant progress beginning in May 2016.

1. At the end of May 2016, Akimeka started preparing GIS data for Kauai's Spillman CAD system.
 - a. Akimeka configured the Spillman Toolbox to process GIS data into Spillman's data specifications.
2. During June 2016, an initial data deliverable included Address Points, MSAG Communities, Street Centerlines, Fire Response Areas, Medic Beats, Police Response Areas, Points of Interest and Street Centerline Alternate Names.
3. On June 30, 2016, Akimeka delivered this data to Spillman Technologies and worked with Spillman Technologies to stand up data on Kauai's server.
 - a. The GIS data was copied over into the Kauai Spillman server and loaded into file designation used for staging.
4. On July 20, 2016, Akimeka met with Spillman via teleconference.
 - a. Reviewed pinmaps
 - b. Discussed closest route module
 - i. Akimeka will be sending data to support this module once Spillman is ready
5. On July 26, 2016, Akimeka sent Spillman the data to support the closest route module, which were mostly street centerlines containing the necessary attribution with speed limits, one way codes, etc.
6. On August 18, 2016, Akimeka recognized a change needed for the law zones and included the update into the next deliverable to Spillman.
7. On August 19, 2016, Akimeka sent Spillman the supporting map layers for display. There may be additional layers to configured subsequently to getting the initial maps set up, and Akimeka will work with Kauai and Spillman on getting any additional content into the system.
8. Akimeka received the updated City Codes from Spillman on August 23, 2016 and began incorporating them into the source GIS data to be used for all following GIS deliverables to the CAD system.
9. During the month of September 2016, Akimeka continued to send routine deliverables for the Spillman CAD system.
10. During the month of October 2016, Akimeka continued to send routine deliverables for the Spillman CAD system.
11. On October 26, 2016, Akimeka sent Fire Hydrant data along with Water Response Zones for Fire, Medic and Police.
12. On October 30, 2016, Akimeka sent updated Fire Beat Zones as requested by the Kauai Fire Department.
13. During the month of November, Akimeka continued to work with Spillman and the Kauai Fire Department on the Fire Beat Zones.
14. The Kauai Police Department went live with their Spillman CAD on December 5th, 2016.
 - a. There were a couple items that were identified during the go live event.
 - i. The Law Judicial Districts did not appear to be available. Spillman mentioned that they had not received this layer. Akimeka was able to identify that the layer was sent to them around the July 21, 2016 timeframe.
 - ii. The Wireless Phase I display was not going to work with the Spillman CAD. During the testing it was decided that the Spillman was not going to be able to handle the display of an individual Phase I coverage area. Subsequently, the agreement was to hold on this until Spillman development team has had time to look into an alternative mechanism for displaying this information.
15. Throughout the remainder of December 2016, there were several additional modifications requested to the GIS data and in addition a new upload process was designed between Akimeka and Spillman to allow for a more efficient process.
 - a. Added a Database Timestamp to display in the map, the date of the delivered data
 - b. Delivered a 453 not available Standard 10 Beats for Police to be used during shift change
 - c. Request to cut out Niihau so that the map will center on Kauai
 - i. Akimeka remove a few parcels to allow for this

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- d. Request was made from KPD IT to remove addresses from Mile Markers
 - i. This is due to the Spillman merging the address with the Mile Marker name and causing confusion to some.
 - ii. Toward the end of December 2016, Akimeka was in the process of gathering information from KPD on an issue regarding the Mile Markers and working on a potential solution which may work best for 9-1-1 dispatch operations. Removing the address may appear to be helpful but may in fact delay the address/location validation process and furthermore delay the response. The discussion will continue through the beginning of January 2017 with the appropriate KPD staff, Spillman representative, and Akimeka in order to find a solution that best support the Public Safety mission and the goals of Next Generation 9-1-1.

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December 1, 2016 - December 31, 2016

| # | Date | Ticket # | Description | Category | Urgency | Comments |
|---|------|----------|-------------|----------|---------|----------|
| | | | None | | | |
| | | | | | | |
| | | | | | | |

NOTE:

There are no open service requests for December 2016.

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

| KAUAI COUNTY | | | | MSAG SERVICE REQUEST CATEGORIES | | | | | |
|-----------------|----------|----------|----------|---------------------------------|----------|----------|----------|----------|----------|
| 2016 | TOTAL | | Open | WIREDLINE | | WIRELESS | | VoIP | |
| | Created | Closed | | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| July | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| August | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| September | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| October | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| November | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| December | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note:

* 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.

| Definitions: | Category | Description |
|--------------|----------|---|
| | Wireline | Telephone Number (ALI) Discrepancies from land line phones that have been submitted to West Safety Services via 9-1-1 Net for correction. |
| | 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

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

Next Scheduled Database Synchronization – January 2017

AUDIT SUMMARY RESULTS – 2017 -- TBA

AUDIT SUMMARY RESULTS – JANUARY 1, 2017 MSAG VS. OCTOBER 1, 2016 MSAG -- TBA

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

AUTOMATIC LOCATION IDENTIFICATION (ALI) DISCREPANCY REPORT -- TBA

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1. PSAP OPERATIONS

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

(Source: West Safety Services Viper system)

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

| 9-1-1 Call Volume | | | | | | | | | | | | | | | | | |
|-------------------|-----------------------------|-----------------------|------------------|-----------------------|------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|------------------|--------------------|------------------|------------------------|------------------|-------------|------------------|
| MAUI PSAP | | 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 | % 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 |
| DEC | 11,052 | 2,169 | 19.63% | 7,363 | 66.62% | 59.54% | 40.46% | 264 | 2.39% | 23 | 0.21% | 0 | 0.00% | 1,233 | 11.16% | 0 | 0.00% |

CALL VOLUME MAUI PSAP NOTES:

*Calls with no Ali 0.21% - Statewide average = 0.15% Year 2016

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

| 9-1-1 Call Volume | | | | | | | | | | | | | | | | | |
|-------------------|-----------------------------|-----------------------|------------------|-----------------------|------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|------------------|--------------------|------------------|------------------------|------------------|-------------|------------------|
| MAUI PSAP | | 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 | % 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 | 11,010 | 1,910 | 17.35% | 7,470 | 67.85% | 56.83% | 43.17% | 297 | 2.70% | 7 | 0.06% | 0 | 0.00% | 1,326 | 12.04% | 0 | 0.00% |
| JULY | 12,362 | 2,216 | 17.93% | 8,304 | 67.17% | 54.29% | 45.71% | 328 | 2.65% | 21 | 0.17% | 0 | 0.00% | 1,493 | 12.08% | 0 | 0.00% |
| AUG | 11,409 | 1,979 | 17.35% | 7,798 | 68.35% | 54.92% | 45.08% | 269 | 2.36% | 14 | 0.12% | 0 | 0.00% | 1,349 | 11.82% | 0 | 0.00% |
| SEPT | 10,445 | 1,860 | 17.81% | 7,033 | 67.33% | 57.78% | 42.22% | 270 | 2.58% | 8 | 0.08% | 0 | 0.00% | 1,274 | 12.20% | 0 | 0.00% |
| OCT | 10,528 | 1,960 | 18.62% | 7,093 | 67.37% | 58.30% | 41.70% | 292 | 2.77% | 14 | 0.13% | 0 | 0.00% | 1,169 | 11.10% | 0 | 0.00% |
| NOV | 10,238 | 1,923 | 18.78% | 6,842 | 66.83% | 57.48% | 42.52% | 301 | 2.94% | 19 | 0.19% | 0 | 0.00% | 1,153 | 11.26% | 0 | 0.00% |
| DEC | 11,052 | 2,169 | 19.63% | 7,363 | 66.62% | 59.54% | 40.46% | 264 | 2.39% | 23 | 0.21% | 0 | 0.00% | 1,233 | 11.16% | 0 | 0.00% |
| YTD | 132,713 | 24,496 | | 89,095 | | | | 3,424 | | 180 | | 0 | | 15,518 | | 0 | |
| MON AVG | 11,059 | 2,041 | 18.48% | 7,425 | 67.12% | 57.39% | 42.61% | 285 | 2.58% | 15 | 0.13% | 0 | 0.00% | 1,293 | 11.68% | 0.00 | 0.00% |

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9-1-1 CALL VOLUME MOLOKAI PSAP – DECEMBER 2016

| 9-1-1 Call Volume | | | | | | | | | | | | | | | | | |
|-------------------|-----------------------------|-----------------------|------------------|-----------------------|------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|------------------|--------------------|------------------|------------------------|------------------|-------------|------------------|
| MOLOKAI PSAP | | 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 | % 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 |
| DEC | 343 | 137 | 39.94% | 160 | 46.65% | 62.50% | 37.50% | 2 | 0.58% | 2 | 0.58% | 0 | 0.00% | 42 | 12.24% | 0 | 0.00% |

CALL VOLUME MOLOKAI PSAP NOTES:

*Calls with no Ali 0.58% - Statewide average = 0.15% Year 2016

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

| 9-1-1 Call Volume | | | | | | | | | | | | | | | | | |
|-------------------|-----------------------------|-----------------------|------------------|-----------------------|------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|------------------|--------------------|------------------|------------------------|------------------|-------------|------------------|
| MOLOKAI PSAP | | 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 | % 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 | 505 | 114 | 22.57% | 317 | 62.77% | 62.46% | 37.54% | 0 | 0.00% | 2 | 0.40% | 0 | 0.00% | 72 | 14.26% | 0 | 0.00% |
| JULY | 398 | 125 | 31.41% | 229 | 57.54% | 60.70% | 39.30% | 1 | 0.25% | 0 | 0.00% | 0 | 0.00% | 43 | 10.80% | 0 | 0.00% |
| AUG | 416 | 128 | 30.77% | 219 | 52.64% | 62.10% | 37.90% | 1 | 0.24% | 2 | 0.48% | 0 | 0.00% | 66 | 15.87% | 0 | 0.00% |
| SEPT | 397 | 122 | 30.73% | 206 | 51.89% | 59.71% | 40.29% | 4 | 1.01% | 22 | 5.54% | 0 | 0.00% | 43 | 10.83% | 0 | 0.00% |
| OCT | 339 | 109 | 32.15% | 194 | 57.23% | 53.09% | 46.91% | 0 | 0.00% | 1 | 0.29% | 0 | 0.00% | 35 | 10.32% | 0 | 0.00% |
| NOV | 364 | 139 | 38.19% | 174 | 47.80% | 59.77% | 40.23% | 4 | 1.10% | 2 | 0.55% | 0 | 0.00% | 45 | 12.36% | 0 | 0.00% |
| DEC | 343 | 137 | 39.94% | 160 | 46.65% | 62.50% | 37.50% | 2 | 0.58% | 2 | 0.58% | 0 | 0.00% | 42 | 12.24% | 0 | 0.00% |
| YTD | 4,620 | 1,509 | | 2,506 | | | | 25 | | 41 | | 0 | | 539 | | 0 | |
| MON AVG | 385 | 126 | 33.06% | 209 | 53.96% | 56.94% | 43.06% | 2.08 | 0.56% | 3 | 0.88% | 0 | 0.00% | 44.917 | 11.53% | 0 | 0.00% |

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

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

| 9-1-1 Call Volume | | | | | | | | | | | | | | | | | |
|-------------------|-----------------------------|-----------------------|------------------|-----------------------|------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|------------------|--------------------|------------------|------------------------|------------------|-------------|------------------|
| MAUI COUNTY PSAPs | | Wireline | | Wireless | | | | VOIP Calls | | 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 | Other Calls | % of Total Calls |
| DEC | 11,395 | 2,306 | 20.24% | 7,523 | 66.02% | 59.60% | 40.40% | 266 | 2.33% | 25 | 0.22% | 0 | 0.00% | 1,275 | 11.19% | 0 | 0.00% |

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

| 9-1-1 Call Volume | | | | | | | | | | | | | | | | | |
|-------------------|-----------------------------|-----------------------|------------------|-----------------------|------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|------------------|--------------------|------------------|------------------------|------------------|-------------|------------------|
| MAUI 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 | % 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 | 11,998 | 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 | 11,515 | 2,024 | 17.58% | 7,787 | 67.62% | 57.06% | 42.94% | 297 | 2.58% | 9 | 0.08% | 0 | 0.00% | 1,398 | 12.14% | 0 | 0.00% |
| JULY | 12,760 | 2,341 | 18.35% | 8,533 | 66.87% | 54.46% | 45.54% | 329 | 2.58% | 21 | 0.16% | 0 | 0.00% | 1,536 | 12.04% | 0 | 0.00% |
| AUG | 11,825 | 2,107 | 17.82% | 8,017 | 67.80% | 55.12% | 44.88% | 270 | 2.28% | 16 | 0.14% | 0 | 0.00% | 1,415 | 11.97% | 0 | 0.00% |
| SEPT | 10,842 | 1,982 | 18.28% | 7,239 | 66.77% | 57.84% | 42.16% | 274 | 2.53% | 30 | 0.28% | 0 | 0.00% | 1,317 | 12.15% | 0 | 0.00% |
| OCT | 10,867 | 2,069 | 19.04% | 7,287 | 67.06% | 58.16% | 41.84% | 292 | 2.69% | 15 | 0.14% | 0 | 0.00% | 1,204 | 11.08% | 0 | 0.00% |
| NOV | 10,602 | 2,062 | 19.45% | 7,016 | 66.18% | 57.54% | 42.46% | 305 | 2.88% | 21 | 0.20% | 0 | 0.00% | 1,198 | 11.30% | 0 | 0.00% |
| DEC | 11,395 | 2,306 | 20.24% | 7,523 | 66.02% | 59.60% | 40.40% | 266 | 2.33% | 25 | 0.22% | 0 | 0.00% | 1,275 | 11.19% | 0 | 0.00% |
| YTD | 137,333 | 26,005 | | 91,601 | | | | 3,449 | | 221 | | 0 | | 16,057 | | 0 | |
| MON AVG | 11,444 | 2,167 | 18.96% | 7,633 | 66.69% | 57.39% | 42.61% | 287 | 2.51% | 18 | 0.16% | 0.00 | 0.00% | 1,338 | 11.68% | 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 911 calls made from the Viper System.

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

TEXT TO 911 – CURRENT MONTH – DECEMBER 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.
- In a press conference on October 13, 2016, an official announcement was made by the Governor of the State of Hawaii introducing “TEXT TO 911” as an emergency public service now available in the State of Hawaii.

| TEXT TO 911 Maui County PSAPs 2016 | | |
|------------------------------------|------------------|---------------------|
| Month | Received at Maui | Received at Molokai |
| January | 1 | 0 |
| February | 0 | 0 |
| March | 38 | 5 |
| April | 12 | 2 |
| May | 25 | 3 |
| June | 19 | 4 |
| July | 43 | 4 |
| August | 23 | 1 |
| September | 30 | 9 |
| October | 87 | 5 |
| November | 24 | 0 |
| December | 18 | 0 |
| YTD | 320 | 33 |
| Monthly Avg. | 26.67 | 2.75 |

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

WIRELESS PSAP TESTING – DECEMBER 2016

| MAUI COUNTY - DECEMBER 2016 | | | | | | |
|-----------------------------|-----|--------------|----------------|------------|----------------|-----------|
| Date | WSP | Sites Tested | Sectors Tested | Tested By: | Test Pass/Fail | Comments: |
| None | | | | | | |
| | | | | | | |
| | | | | | | |

NOTES:

- There were no scheduled Wireless 911 tests conducted in December, 2016 for the Maui and Molokai PSAP.

WIRELESS PSAP TESTING – YEARLY TOTALS 2016

| MAUI COUNTY - 2016 | | | | | | |
|---|---------|--------------|----------------|------------|----------------|----------------------------------|
| WIRELESS 911 PSAP TESTING TOTALS 2016 | WSP | Sites Tested | Sectors Tested | Tested By: | Test Pass/Fail | Comments: |
| | AT&T | 1 | 3 | Maui PSAP | Pass | Hana Site |
| | SPRINT | 2 | 7 | Maui PSAP | Pass | 1 site on Molokai/1 site on Maui |
| | VERIZON | 35 | 117 | Maui PSAP | Pass | |
| | Total | 38 | 127 | | | |

NOTES:

The Maui County PSAP tested a total of 38 cell towers sites and 127 cell sectors in 2016.

FOR YOUR INFORMATION

A “911 Wireless Testing Holiday Blackout” will be in effect starting on December 11th, 2016 until January 3rd, 2017 for Kauai PD, Maui PD, Molokai PD, and the Honolulu PD PSAPs. Hawaii County PD PSAP extends their blackout until January 17th, 2017 due to new PSAP equipment installation.

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – DECEMBER 2016

| MAUI COUNTY | 9-1-1 TRANSACTIONS | | | | | | | | |
|---------------|--------------------|----------|---------------|------------|----------|------------------------------|--------|---------|-----------------------------|
| | Total | MSAG | ALI Submitted | | | Open ALI Discrepancy Records | | | Customer Addresses Affected |
| 2016 | | MSAG (A) | TN CR (B) | ALI DR (C) | VoIP (D) | TNCR | ALI DR | VoIP DR | |
| 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 | 60 | 38 | 21 | 1 | 0 | 823 | 0 | 0 | 608 |
| JULY | 37 | 16 | 20 | 1 | 0 | 467 | 0 | 0 | 402 |
| AUGUST | 83 | 18 | 64 | 1 | 0 | 421 | 0 | 0 | 477 |
| SEPTEMBER | 37 | 8 | 27 | 1 | 1 | 386 | 0 | 0 | 110 |
| OCTOBER | 23 | 7 | 15 | 1 | 0 | 359 | 0 | 0 | 36 |
| NOVEMBER | 16 | 15 | 1 | 0 | 0 | 323 | 0 | 0 | 36 |
| DECEMBER | 8 | 7 | 1 | 0 | 0 | 282 | 0 | 0 | 42 |
| TOTAL YTD | 878 | 214 | 654 | 8 | 2 | | | | 3,833 |
| AVG PER MONTH | 73 | 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) **Telephone Number Change Request** - 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) **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.

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

MSAG CURRENT MONTH NOTES:

A total of eight **8** MSAG transactions were processed in 9-1-1 Net during the month of December 2016. Seven (7) 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 **42** customer ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

One (1) Telephone Number Change Requests (TN CR) transaction was processed and corrected in 9-1-1 Net with a valid MSAG address. In December 2016, there were **42** TN CRs completed and as a result, two (2) ESN 359/399 street records were deleted from the MSAG database. No ALI DR's were submitted this month.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are 282 Open TN CR Transactions as of December 31, 2016.**
- **Refer to chart in the next section "TNCR Current Status"**

255 Open TN CR transactions are a direct result of the ESN 399 clean-up and are awaiting approval from Hawaiian Telcom, Inc. **27** 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 West for correction, it must be verified against HT records and/or approved by the customer. West'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 December 31, 2016**
- **There are no VoIP DRs Open as of December 31, 2016**

TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – DECEMBER, 2016

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 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 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 | OPENED TNCRS PENDING FURTHER ACTION BY WEST SAFETY SERVICES (INTRADO) | OPENED TNCRS REFERRED TO TELCO BY WEST SAFETY SERVICES (INTRADO) | TOTAL UNOPENED TNCR RECORDS |
| MAUI | 209 | 61 | 87 | 61 |
| MOLOKAI | 73 | 13 | 48 | 12 |
| TOTAL | 282 | 74 | 135 | 73 |

| STATUS |
|--|
| <u>TOTAL TNCRs SUBMITTED</u> - The total number of TNCR requests for modification that have been submitted in 9-1-1 |
| <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 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. |

DISPATCHABLE LOCATION – STATUS AS OF – DECEMBER 2016 - PENDING

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

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. There are currently 1612 transactions prepared for submission. Present observations indicate that previous transactions that were submitted in 2015 and 2016 are currently being processed.

| Dispatchable Location | | | | | |
|---|------------------------------------|---------|---------------------------------------|--|------------------------------------|
| Common Name Place | MSAG Address | 2016 | Number of TNCR* Transactions Prepared | Number of TNCR* Transactions Submitted | Number of Transactions Processed** |
| Queen Kaahumanu Center | Carryover from 2015 | 2015 | | 368 | 310 |
| *Common Name Place and Address Available Upon Request | | Jan-Jul | 877 | 6 | 27 |
| Azeka Kihei | 1280 S. Kihei Rd, Kihei | Aug | 49 | 0 | 0 |
| Piilani Shopping Center | Piikea Ave, Kihei | | 118 | 0 | 0 |
| Maui Marketplace | 270 Dairy Rd, Kahului | Sept | 129 | 0 | 1 |
| University of Hawaii, Maui Campus | 310 Kaahumanu Ave, Kahului | Oct | 245 | 0 | 9 |
| Honua Kai Resort | 130 Kai Malina Pkwy, Kaanapali | Nov | 60 | 0 | 0 |
| Fairmont Kea Lani | 4100 Wailea Alanui Dr, Wailea | Dec | 29 | 0 | 0 |
| Four Seasons Wailea | 3900 Wailea Alanui Dr, Wailea | | 40 | 0 | 0 |
| Kaanapali Beach Club | 104 Kaanapali Shores PL, Kaanapali | | 10 | 0 | 0 |
| Kaanapali Villas | 45 Kai Ala Dr, Kaanapali | | 32 | 0 | 0 |
| Koa Resort | 811 S. Kihei Rd, Kihei | | 23 | 0 | 0 |
| | | Total | 1612 | 374 | 347 |

| 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. |

CHARTER COMMUNICAATIONS (TIME WARNER) VOIP DATABASE TNCR

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

Akimeka received Automatic Location Identification (ALI) records from Charter Communications (formally known as Time Warner) which is the predominant Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka had access to these ALI Records, Akimeka was able to perform a three way comparison. This comparison is a validation of the ALI Record to ensure the location as provided by the VoIP provider matches the GIS Information utilized by the Public Safety Agencies within their specific County 9-1-1 Service Area. This validation reduces the potential of address or location dispute during a 9-1-1 call.

The Analysis of the database records indicated there were invalid MSAG addresses utilized by the VoIP Provider, however, the majority of these records were corrected, or sent back to Charter for further location clarifications. Akimeka was able to verify the majority of the VoIP records had a valid MSAG address assigned and matched with the GIS information. Akimeka has also initiated a correction process with Charter Communications on behalf of the PSAPs in order to perform timely corrections to the remaining VoIP 9-1-1 Records, and to ensure new VoIP customers receive valid MSAG addresses to improve their 9-1-1 location service.

| Charter Communications 9-1-1 Telephone Number Location Change Request (Telephone Number Change Request (TNCR) Status) | | | |
|--|---|---|---|
| PSAP | TOTAL RECORDS SUBMITTED BY CHARTER (A) | RECORDS REQUIRING FURTHER INFORMATION BY CHARTER (B) | RECORDS CORRECTED AND RETURNED TO CHARTER BY AKIMEKA (C) |
| HAWAII County | 19,135 | 5 | 33 |
| KAUAI County | 7,911 | 7 | 39 |
| MAUI County | 15,629 | 0 | 7 |
| OAHU Civilian | 82,256 | 5 | 66 |
| TOTAL | 124,931 | 17 | 145 |

| | |
|------------|---|
| (A) | VoIP Database records submitted by Charter to Akimeka for research and MSAG address validation. |
| (B) | Akimeka was not able to determine an MSAG valid address with the information provided. Charter is advised to contact customer and provide Akimeka with a TMK or driving directions. |
| (C) | Akimeka researched and provided Charter with an MSAG valid address. |

3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – DECEMBER 2016

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Address Points | 12/30/2016 | | Added one (1) address in Haiku |
| | 12/29/2016 | | Added one (1) address in Kahului |
| | 12/29/2016 | | Spatially corrected two (2) address points in Kahului |
| | 12/29/2016 | | Added two (2) addresses in Spreckelsville |
| | 12/29/2016 | | Spatially moved one (21 address point in Spreckelsville |
| | 12/29/2016 | | Spatially corrected three (3) address points in Napili |
| | 12/29/2016 | | Added one (1) address in Kula |
| | 12/29/2016 | | Added one (1) address in Kualapuu |
| | 12/29/2016 | | Spatially corrected sixty (60) address points in Kihei |
| | 12/27/2016 | | Spatially corrected one (1) address point in Kihei |
| | | 12/21/16 | |
| | 12/21/2016 | | Spatially corrected one (1) address point in Kihei |
| | 12/20/2016 | | Added Location Name for one (1) address in Kihei |
| | 12/20/2016 | | Spatially corrected one (1) address point in Wailea |
| | 12/19/2016 | | Added one (1) POI address on Lanai |
| | 12/19/2016 | | Assigned one (1) POI address in Maunaloa |
| | 12/19/2016 | | Added one (1) MSAG address in Waihee |
| | 12/19/2016 | | Added two (2) Alias Location Names in the MPD Common Places Lookup Table |
| | 12/15/2016 | | Spatially corrected one (1) address point in Haiku |
| | 12/15/2016 | | Added three (3) addresses in Haiku |
| | 12/15/2016 | | Added three (3) addresses in Hana |
| | 12/15/2016 | | Spatially corrected one (1) address point in Hana |
| | 12/15/2016 | | Added two (2) addresses in Kula |
| | 12/15/2016 | | Spatially corrected one (1) address point in Kula |
| | 12/12/2016 | | Spatially corrected one (1) address point in Haiku |
| | 12/12/2016 | | Added one (1) address in Haiku |
| | 12/12/2016 | | Spatially corrected two (2) address points in Kaanapali |
| | 12/12/2016 | | Added seven (7) addresses in Kaanapali |
| | 12/12/2016 | | Changed one (1) address in Kaluakoi |
| | 12/12/2016 | | Added one (1) address in Kaunakakai |
| | 12/12/2016 | | Added one (1) address in Kula |
| | 12/12/2016 | | Added one (1) address in Lahaina |

MAPPING LAYERS UPDATED (PART II)

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

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 Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Address Points | 12/12/2016 | | Added two (2) addresses in Makawao |
| | 12/12/2016 | | Added one (1) address in Pukalani |
| | | 12/07/16 | |
| | 12/6/2016 | | Added one hundred sixty-four (164) addresses in Wailea |
| | 12/5/2016 | | Added one (1) address in Wailuku |
| | 12/5/2016 | | Added one (1) address in Kahului |
| | 12/5/2016 | | Changed one (1) address in Kula |
| | 12/5/2016 | | Spatially corrected one (1) address point in Wailea |
| | 12/5/2016 | | Added six hundred forty six (646) addresses in Wailea |
| Airports | | | |
| Bridges | | | |
| Building Footprints | | | |
| Bus Stops | | | |
| Churches | | | |
| Coastal Names | | 12/21/16 | |
| | 12/21/2016 | | Corrected Coastal Name in Lanai |
| Coastline | | | |
| Common Places | | | |
| Correctional Facilities | | | |
| Emergency Callboxes | | | |
| Emergency Operation Centers | | | |
| Emergency Shelters | | | |
| ESZ/ESN | 12/13/2016 | | Modified boundary between ESN 313 and 315 to match spatially corrected street centerlines |
| Fire Beats | | | |
| Fire Districts | | | |
| Fire Response Areas | | | |
| Fire Stations | | | |
| Food & Beverage | | | |
| Gas Stations | | | |
| Gate Codes | | | |
| Government Buildings | | | |

Maui County E9-1-1 Status Report

December 1, 2016 - December 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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| 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 | 12/13/2016 | | Modified boundary between Waikapu and Kahului to match spatially corrected street centerlines |
| Net Junctions | | | |
| Ocean Rescue Boundaries | | | |
| Ocean Safety | | | |
| Parcels | | | |
| Parks | | | |
| Parks Polygon | | | |
| Points of Interest | 12/29/2016 | | Added one (1) POI in Kihei |
| | 12/29/2016 | | Added one (1) POI in Wailuku |
| | | 12/21/16 | |
| | 12/21/2016 | | Added two (2) POI in Haiku |
| | 12/21/2016 | | Added one (1) POI in Haliimaile |
| | 12/21/2016 | | Added one (1) POI in Hana |
| | 12/21/2016 | | Spatially corrected two (2) POI in Kaanapali |
| | 12/21/2016 | | Added fifteen (15) POI in Kaanapali |
| | 12/21/2016 | | Added four (4) POI in Kahului |
| | 12/21/2016 | | Added two (2) POI in Kihei |

Maui County E9-1-1 Status Report

December 1, 2016 - December 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.

| MAUI COUNTY | | | |
|--|----------------------------------|--------------------|--|
| Type of Layer | Akimeka GIS Server | Date GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Points of Interest | 12/21/2016 | | Added thirty-eight (38) POI in Lahaina |
| | 12/21/2016 | | Added one (1) POI in Maalaea |
| | 12/21/2016 | | Added two (2) POI in Paia |
| | 12/21/2016 | | Added one (1) POI in Pukalani |
| | 12/21/2016 | | Added two (2) POI in Waiehu |
| | 12/21/2016 | | Added sixty-seven (67) POI in Wailea |
| | 12/21/2016 | | Added eight (8) POI in Wailuku |
| | 12/20/2016 | | Added forty-three (43) POI in Haiku |
| | 12/20/2016 | | Added two (2) POI in Haliimaile |
| | 12/20/2016 | | Added forty-nine (49) POI in Hana |
| | 12/20/2016 | | Added fourteen (14) POI in Hoolehua |
| | 12/20/2016 | | Added fourteen (14) POI in Kaanapali |
| | 12/20/2016 | | Added seventy-four (74) POI in Kahului |
| | 12/20/2016 | | Added one (1) POI in Kaluakoi |
| | 12/20/2016 | | Added nine (9) POI in Kapalua |
| | 12/20/2016 | | Added thirty (30) POI in Kaunakakai |
| | 12/20/2016 | | Added fifty (50) POI in Kihei |
| | 12/20/2016 | | Added eight (8) POI in Kualapuu |
| | 12/20/2016 | | Added seventy-nine (79) POI in Kula |
| | 12/20/2016 | | Added sixty-one (61) POI in Lahaina |
| | 12/20/2016 | | Added thirty-seven (37) POI in Lanai |
| | 12/20/2016 | | Added ten (10) POI in Maalaea |
| | 12/20/2016 | | Added twenty-one (21) POI in Makawao |
| | 12/20/2016 | | Added five (5) POI in Maunaloa |
| | 12/20/2016 | | Added ten (10) POI in Napili |
| | 12/20/2016 | | Added sixteen (16) POI in Paia |
| | 12/20/2016 | | Added seven (7) POI in Pukalani |
| | 12/20/2016 | | Added seven (7) POI in Pukoo |
| | 12/20/2016 | | Added four (4) POI in Spreckelsville |
| | 12/20/2016 | | Added eight (8) POI in Waiehu |
| | 12/20/2016 | | Added nineteen (19) POI in Waihee |
| | 12/20/2016 | | Added three (3) POI in Waikapu |
| | 12/20/2016 | | Added thirty-four (34) POI in Wailea |

Maui County E9-1-1 Status Report

December 1, 2016 - December 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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Points of Interest | 12/20/2016 | | Added forty-one (41) POI in Wailuku |
| | 12/12/2016 | | Added one (1) POI in Kaanapali |
| | | 12/07/16 | |
| | 12/7/2016 | | Spatially corrected four (4) POI in Kaanapali |
| | 12/7/2016 | | Added six (6) POI in Kapalua |
| | 12/7/2016 | | Added one (1) POI in Kaanapali |
| | 12/5/2016 | | Changed one (1) POI name in Wailea |
| | 12/5/2016 | | Added one (1) POI in Kahului |
| | 12/5/2016 | | Added six (6) POI in Wailea |
| Police Beats | | 12/21/16 | |
| | 12/13/2016 | | Modified boundary between Police Beat 31 & 34 to match spatially corrected street centerlines |
| Police Districts | | | |
| Police Response Areas | | | |
| Police Stations | | | |
| Post Offices | | | |
| Schools | | | |
| Street Centerlines | | 12/21/16 | |
| | 12/19/2016 | | Spatially corrected four (4) street centerline segments in Hana |
| | 12/19/2016 | | Assigned one (1) street centerline range in Kihei |
| | 12/16/2016 | | Spatially corrected four (4) street centerline segments in Makawao |
| | 12/15/2016 | | Spatially corrected two (2) street centerline segments in Makawao |
| | 12/14/2016 | | Spatially corrected four (4) street centerline segments in Makawao |
| | 12/14/2016 | | Modified two (2) street centerline segment ranges in Makawao |
| | 12/14/2016 | | Added one (1) street centerline segment in Makawao |
| | 12/13/2016 | | Spatially corrected four (4) street centerline segments in Haiku |
| | 12/13/2016 | | Partial spatial correction of one (1) street centerline segment in Haiku |
| | 12/13/2016 | | Spatially corrected one (1) street centerline segment in Makawao |
| | 12/13/2016 | | Spatially corrected six (6) street centerline segments in Waikapu |
| | 12/13/2016 | | Split one (1) street centerline segment in Waikapu |
| | 12/12/2016 | | Spatially corrected five (5) street centerline segments in Kahului |
| | 12/12/2016 | | Modified two (2) street centerline range segments in Kaluakoi |
| | 12/12/2016 | | Modified two (2) street centerline range segments in Kula |

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

MAPPING LAYERS UPDATED (PART VI)

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 Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Street Centerlines | 12/12/2016 | | Spatially corrected two (2) street centerline segments in Waikapu |
| | 12/12/2016 | | Split one (1) street centerline segment in Waikapu |
| | | 12/07/16 | |
| Subdivisions | 12/29/2016 | | Added one (1) subdivision in Kahului |
| Tow Jurisdictions | | | |
| Tsunami Evacuation Zones | | | |
| Tsunami Heights | | | |
| Waste Water Plants | | | |
| WSP Cell Sectors | | 12/21/16 | |
| | 12/14/2016 | | Per AT&T CRS |
| | | 12/07/16 | |
| | 12/6/2016 | | Per AT&T CRS |
| | 12/2/2016 | | Per AT&T CRS |
| WSP Cell Towers | | 12/21/16 | |
| | 12/14/2016 | | Per AT&T CRS |
| | | 12/07/16 | |
| | 12/6/2016 | | Per AT&T CRS |
| | 12/2/2016 | | Per AT&T CRS |

GIS Summary for 2016

| MAUI COUNTY | | |
|--|--------|---|
| Type of Layer | Totals | Remarks |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE | | |
| Address Points | 7,599 | Approximate number of new and/or edited *Address Points added to the Maui County GIS map and database in 2016. |
| Street Centerlines | 1,039 | Approximate number of new and/or edited *Street Centerlines added to the Maui County GIS map and database in 2016. |
| Points of Interest | 2,094 | Approximate number of new and/or edited *Points of Interest/Common Name Places added to the Maui County GIS map and database in 2016. |

* Specific details available upon request.

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

NOTE:

The above summary does not capture the entire GIS effort for the 2016 year, only a list of some of the more critical layer updates. There were a significant amount of updates that took place with other layers such as response layers, and other supporting GIS information. Also, for a summary regarding wireless updates, please refer to the CRS sections to see the 2016 year totals, which are also largely impacting to the PSAPs.

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.

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 |
|------------|---|
| 12/21/2016 | Delivered .map, .str., rte., Maui Cell Coverage. cvs which included updated Address Points, Coastal Names, Common Places Lookup Table, Police Beats, Street Centerlines and WSP Cell Towers for Intergraph CAD Map update |
| 12/7/2016 | Delivered .map, .str., rte., and Maui Cell Coverage.cvs which included updated Address Points, MPD Look Up Table, Street Centerlines and WSP Cell Towers for Intergraph CAD Map |

Maui County E9-1-1 Status Report

December 1, 2016 - December 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 December 7, 2016 – Akimeka delivered an updated Intergraph CAD map which included:
 - a. Address Points, Common Places Lookup Table, Street Centerlines, and WSP Cell Towers.
 - b. .map, .str, .rte, CAD Map Build database and Cell Coverage.csv
 - c. Added Street labels to the CAD map.
2. Akimeka delivered an updated Intergraph CAD map on December 21, 2016 which included:
 - a. Address Points, Coastal Names, Common Places Lookup Table, Police Beats, Street Centerlines, and WSP Cell Towers.
 - b. .map, .str, .rte, CAD Map Build database and Cell Coverage.csv
 - c. Added Street labels to the CAD map.

During January 2017, the Intergraph CAD map will continue to be delivered every other week, which has been coordinated with all mapping system updates and synchronizations with other 911 databases.

MAPFLEX SYSTEM

During the month of December 2016, the MapFlex system received one manual update as a result of MapFlex having several issues pertaining to the automated upload processes.

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

Due to the issues MapFlex is having regarding the automatic updates, all of the PSAPs had agreed to hold on all GIS updates until West has made the necessary system changes. Manual GIS uploads took place on December 9, 2016.

1. Akimeka delivered GIS data to the MapFlex system on the following dates in December 2016
 - a. **Hawaii County** – December 9, 2016
 - b. **Maui County** – December 9, 2016
 - c. **Kauai County** – December 9, 2016
 - d. **Honolulu** – December 9, 2016
2. Although there were no official confirmation that the manual updates were completed, Akimeka confirmed on December 20th that the GIS data was successfully updated in the MapFlex system.

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

MAPFLEX SYSTEM ISSUES

During the month of August 2016, there were some identified issues regarding the MapFlex system, some of which were a continuation of previous issues identified.

On August 3, 2016, during the all PSAP conference call with West, Akimeka, and Hawaiian Telcom also in attendance, there were several issues that were discussed.

1. There was an upload issue with the Kauai MapFlex system on July 24, 2016 which was related to an issue which Maui PD experienced earlier in the year. The MapFlex screen went blank and there was no mapping capability.
 - a. West relayed that there is an issue with the automatic update script and there are updates required for them to make to the system.
 - b. All of the PSAPs agreed to hold off on all GIS updates in MapFlex until West has resolved the issue.
2. The MapFlex system began displaying wireless information incorrectly during the month of August 2016.
 - a. The issue described is that when wireless calls are coming into the PSAPs, the ALI information appears to be correct and it matches with the GIS data, so it subsequently displays a Phase I location for Phase I calls. What is occurring directly after this, is the MapFlex system is doing a reverse query for additional information in the GIS and this is overriding the ALI information with the closest address in the GIS.
 - b. West and HT are looking into the issue and are planning a software update that should help resolve the issue.
3. The Text-to-911 icons have stopped displaying at the PSAPs.
 - a. It was identified that the icons for text calls have stopped displaying in the MapFlex maps. Previously when calls came in as a text call, there would be an icon displaying "TEXT" where the call was plotted.
 - b. West and HT will be researching the issue.
4. Throughout October 2016 West and HT continued to work on the patches to fix some of the above issues.
5. During November 2016, the updates were installed on the MapFlex systems throughout the State of Hawaii.
 - a. After the updates had taken place, issues were identified with the display of Phase I coverage areas in MapFlex – identified by the Honolulu Fire Department. In addition, the only information that was being displayed for Phase I calls were Lat/Longs with a static coverage of approximately 330 meters for all calls. The issue was first identified when calls had plotted in the ocean, while the caller was surely on land.
 - b. The issue was brought to West and HT's attention for resolution.
 - c. West had worked internally with their team and determined that it was an issue with the confidence with Sprint wireless and that Sprint was the source of the issue in MapFlex.
 - d. The discussions on this issue circled for some time throughout November without resolution until it was discovered later in November that the reason the coverage area was not being displayed was due to the MapFlex upgrade that was installed. After installation, the configurations for Wireless Phase I were not set up properly by West, in which the mapping did not point to the correct information in MapFlex.
 - e. The additional issue with MapFlex plotting the centroid of the sector as the tower location still remains and is being troubleshooted by West and HT.
 - f. West and HT will be following up with the PSAPs with a resolution in December 2016.
 - g. The next conference call with West, HawaiianTel, and the PSAPs is scheduled for January 11th.

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS – MAUI COUNTY PSAPS - DECEMBER 2016

| MAUI COUNTY | | | | | | |
|-------------|------|----------|-------------|------|---------|----------|
| # | Date | Ticket # | Description | PSAP | Urgency | Comments |
| | | | None | | | |
| | | | | | | |

NOTE:

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

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

| MAUI COUNTY | | | | MSAG SERVICE REQUEST CATEGORIES | | | | | |
|-----------------|-----------|-----------|----------|---------------------------------|-----------|----------|----------|----------|----------|
| 2016 | TOTAL | | Open | WIRELINE | | WIRELESS | | VoIP | |
| | Created | Closed | | 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 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| July | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| August | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| September | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| October | 3 | 3 | 0 | 3 | 3 | 0 | 0 | 0 | 0 |
| November | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| December | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 13 | 13 | 0 | 11 | 11 | 0 | 0 | 2 | 2 |

Note:

* 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.

| Definitions: | Category | Description |
|--------------|----------|---|
| | Wireline | Telephone Number (ALI) Discrepancies from land line phones that have been submitted to West Safety Services via 9-1-1 Net for correction. |
| | 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 |

Maui County E9-1-1 Status Report

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5. E9-1-1 DATABASE SYNCHRONIZATION

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

As part of Akimeka's value added services, Akimeka conducted the next quarterly database synchronization audit for Maui County in December 2016.

The database synchronization effort included comparing Maui County's 9-1-1 MSAG against its GIS Street Centerline data. A total number of **2,703** 9-1-1 MSAG (ESN 300 – 357) records were reviewed in the audit and analyzed. Results of the database synchronization audit completed on December 1, 2016 for Maui 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%.

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

AUDIT SUMMARY RESULTS – 2015-2016

| 9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS | Notes | As of March 1, 2016 | | As of June 1, 2016 | | As of September 1, 2016 | | As of December 1, 2016 | |
|--|-------|-----------------------------|---------|-----------------------------|---------|-----------------------------|---------|------------------------------|---------|
| | | 9-1-1 MSAG Dated 3-01-16 | | 9-1-1 MSAG Dated 6-01-16 | | 9-1-1 MSAG Dated 9-01-16 | | 9-1-1 MSAG Dated 12-01-16 | |
| | | # of Records | % | # of Records | % | # of Records | % | # of Records | % |
| Total 9-1-1 MSAG Records Reviewed | | 2,681 | | 2,689 | | 2,693 | | 2,703 | |
| Less: 9-1-1 MSAG Exception Records | (1) | 75 | 2.7% | 75 | 2.7% | 75 | 2.7% | 75 | 2.7% |
| Net 9-1-1 MSAG Records Eligible for Comparison | | 2,606 | | 2,614 | | 2,618 | | 2,628 | |
| Total 9-1-1 MSAG Records Match (9-1-1 MSAG -- GIS Match -- No Corrections Required) | | 2,606 | 100.00% | 2,614 | 100.00% | 2,616 | 100.00% | 2,626 | 100.00% |
| 9-1-1 MSAG -- GIS No Match - Minor Correction Required | (2) | 0 | 0.0% | 0 | 0.0% | 1 | 0.0% | 1 | 0.0% |
| 9-1-1 MSAG Record With No GIS Record | (3) | 0 | 0.0% | 0 | 0.0% | 1 | 0.0% | 1 | 0.0% |
| Total 9-1-1 MSAG Records No Match | | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |

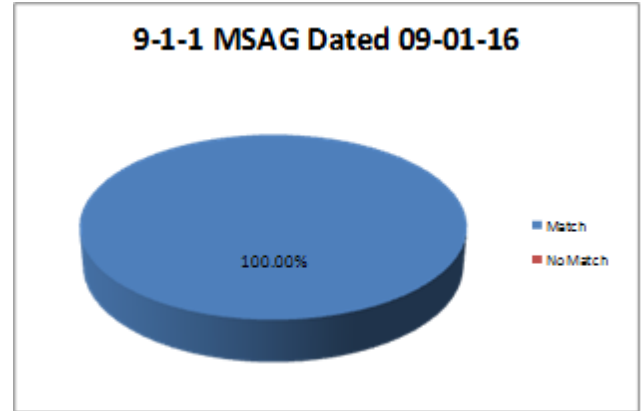
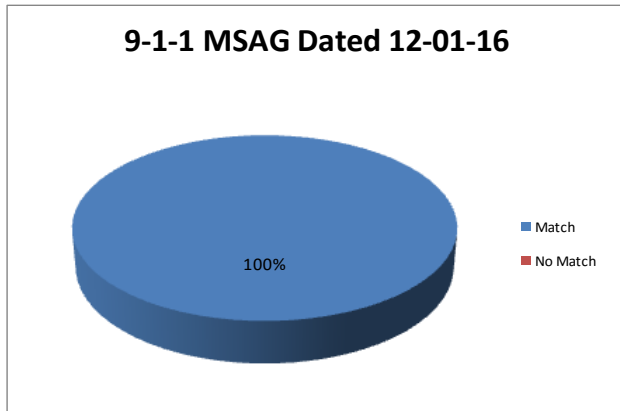
AUDIT SUMMARY NOTES:

- (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.

Maui County E9-1-1 Status Report

December 1, 2016 - December 31, 2016

MSAG AUDIT SUMMARY RESULTS – DECEMBER 1, 2016 VS SEPTEMBER 1, 2016



NOTE:

Maui County's level of accuracy or 9-1-1 Match percentage remained constant
at 100% as of December 1, 2016 to 100% on September 1, 2016
NENA Recommended Match Rate = 98%

MSAG AUDIT SUMMARY RESULTS NOTES:

- “MSAG - GIS Minor Corrections” increased by two (0 to 2) from September 2016 to December 2016 respectively. The two minor corrections is primarily the result of edits made to the GIS Street Centerlines layer in order to meet new NG9-1-1 requirements. Low and high address ranges were then adjusted in the MSAG to correspond with the GIS record. Although this is a minor correction, customer telephone numbers (TNs) need to be validated by the service providers prior to adjusting an address range.
- “MSAG Record with No GIS Record” decreased by one (1 to 0) from September 2016 to December 2016. The total of zero MSAG Record with No GIS Record was due primarily to the verification of the MSAG records against multiple GIS databases to determine if the roads are existing within Maui County records.
- “GIS Record with Minor Corrections” increased by two (0 to 2) from September 2016 to December 2016 respectively. Low and high address ranges, street suffix, and MSAG Community were adjusted in the GIS to correspond with the MSAG record.
- “MSAG records that don’t match GIS” increased by two (1 to 3) from September 2016 to December 2016. This is a result in which MSAG records submitted in 9-1-1 Net were not completed prior to the end of the month.
- Ongoing maintenance is critical to ensure the database synchronized level of address accuracy is maintained each time an MSAG or GIS record is “last modified”.

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INVALID MSAG STREETS AND ADDRESS RANGES – ESN X99 RECORDS

Hawaiian Telcom, Inc. (HTI) provides Maui County and Akimeka, as the PSAP's agent, with access and visibility to the ESN 359/399 MSAG records which are "known" invalid streets and address ranges. Results of the data provided are as follows:

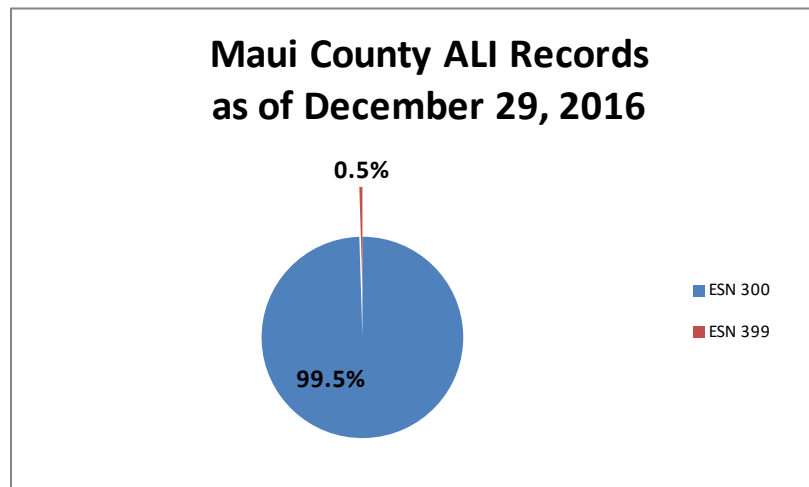
| PSAP | ESN | Invalid MSAG Records | | | | | | | |
|------------|-----|---------------------------|---|---------------------------|---|---------------------------|---|---------------------------|---|
| | | 9-1-1 MSAG Dated 03-01-16 | | 9-1-1 MSAG Dated 06-01-16 | | 9-1-1 MSAG Dated 09-01-16 | | 9-1-1 MSAG Dated 12-01-16 | |
| | | # of Records | % of Total MSAG Records (Valid and Invalid) | # of Records | % of Total MSAG Records (Valid and Invalid) | # of Records | % of Total MSAG Records (Valid and Invalid) | # of Records | % of Total MSAG Records (Valid and Invalid) |
| MAUI | 399 | 97 | 3.8% | 75 | 2.9% | 49 | 1.9% | 43 | 1.7% |
| MOLOKAI | 359 | 27 | 10.7% | 22 | 9.1% | 18 | 7.5% | 17 | 7.0% |
| TOTAL MAUI | | 124 | 4.4% | 97 | 3.5% | 67 | 2.4% | 60 | 2.2% |

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AUTOMATIC LOCATION IDENTIFICATION (ALI) DISCREPANCY REPORT

As part of Akimeka's ongoing database synchronization efforts, Akimeka reviewed and summarized the ALI discrepancy reports by community for Maui County. As of December 29, 2016, **325** ESN 399 (Maui/Lanai) and ESN 359 (Molokai) records, representing **.5%** of Maui County's total ALI records, require research and corrective action, if needed.



THE TOTAL NUMBER OF ALI RECORDS REMAINS RELATIVELY CONSISTENT.

NOTES:

The number of ESN 359/399 ALI records decreased from 366 to 325 from September 2016 to December 2016 respectively. The decrease reflects the work that Akimeka has done since the last database synchronization in September 2016. Extensive research has gone into verifying the invalid TNs against current County data. This is an ongoing project, as Akimeka continues to research and correct the ESN 359/399 records.

Oahu Civilian E9-1-1 Status Report

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Oahu Civilian E9-1-1 Status Report

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1. PSAP OPERATIONS

9-1-1 CALL VOLUME – DECEMBER 2016

(Source: West Safety Services Viper system)

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

| 9-1-1 Primary PSAP Call Volume | | | | | | | | | | | | | | | | | |
|--------------------------------|-----------------------------|-----------------------|------------------|-----------------------|------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|------------------|--------------------|------------------|------------------------|------------------|--------------------|------------------|
| Honolulu City & County PSAPs | | Wireline | | Wireless | | | | VOIP | | Calls With No ALI | | Admin Calls | | Abandoned Calls | | Other Calls | |
| 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 |
| December | 85,930 | 18,527 | 21.56% | 63,528 | 73.93% | 51.98% | 21.95% | 3,815 | 4.44% | 60 | 0.07% | 2,151 | 2.50% | 11,830 | 13.77% | 639 | 0.74% |

9-1-1 CALL VOLUME – CALENDAR YEAR 2016

| 9-1-1 Primary PSAP Call Volume | | | | | | | | | | | | | | | | | |
|--------------------------------|-----------------------------|-----------------------|------------------|-----------------------|------------------|--------------------------|--------------------------|-------------------|------------------|--------------------------|------------------|--------------------|------------------|------------------------|------------------|----------------------------|------------------|
| Honolulu City & County PSAPs | | Wireline | | Wireless | | | | VOIP Calls | | Calls with No ALI | | Admin Calls | | Abandoned Calls | | Other Calls | |
| 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 | 19,386 | 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 | 80,312 | 18,255 | 22.73% | 58,821 | 73.24% | 48.33% | 24.91% | 3,180 | 3.96% | 56 | 0.07% | 1,981 | 2.47% | 11,411 | 14.21% | 776 | 0.97% |
| JULY | 86,586 | 19,231 | 22.21% | 64,108 | 74.04% | 49.47% | 24.57% | 3,186 | 3.68% | 61 | 0.07% | 2,281 | 2.63% | 11,999 | 13.86% | 512 | 0.59% |
| AUG | 85,574 | 18,964 | 22.16% | 63,410 | 74.10% | 51.22% | 22.88% | 3,166 | 3.70% | 34 | 0.04% | 2,000 | 2.34% | 11,786 | 13.77% | 671 | 0.78% |
| SEPT | 79,098 | 17,884 | 22.61% | 58,255 | 73.65% | 51.40% | 22.25% | 2,935 | 3.71% | 24 | 0.03% | 1,928 | 2.44% | 10,284 | 13.00% | 669 | 0.85% |
| OCT | 83,447 | 18,108 | 21.70% | 62,151 | 74.48% | 52.56% | 21.92% | 3,146 | 3.77% | 42 | 0.05% | 2,581 | 3.09% | 11,448 | 13.72% | 662 | 0.79% |
| NOV | 79,900 | 17,538 | 21.95% | 59,022 | 73.87% | 53.40% | 20.47% | 3,268 | 4.09% | 72 | 0.09% | 1,879 | 2.35% | 11,143 | 13.95% | 585 | 0.73% |
| DEC | 85,930 | 18,527 | 21.56% | 63,528 | 73.93% | 51.98% | 21.95% | 3,815 | 4.44% | 60 | 0.07% | 2,151 | 2.50% | 11,830 | 13.77% | 639 | 0.74% |
| YTD | 1,009,059 | 226,157 | | 743,841 | | | | 38,456 | | 605 | | 24,761 | | 141,431 | | 9,489 | |
| MON AVG | 84,088 | 18,846 | 22.41% | 61,987 | 73.71% | 50.87% | 22.85% | 3,205 | 3.81% | 50 | 0.06% | 2,063 | 2.45% | 11,786 | 14.01% | 791 | 0.93% |

NOTE:

- *Calls with no Ali 0.07% - Statewide average = 0.15% Year 2016

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December 1, 2016 - December 31, 2016

9-1-1 CALL VOLUME BY AGENCY – DECEMBER 2016

| 2016 | 9-1-1 Call Volume by Agency | | | | | | | | | |
|----------|-----------------------------|------------------|---------------------------|-------------------------------|-----------------------|-------------------------|-----------------------------|------------------|-----------------------|-------------------------|
| | Honolulu Police Department | | | | | | Honolulu Fire Department | | | |
| | No. of Total Calls Received | % of Total Calls | Number of Emergency Calls | Number of Non Emergency Calls | Number of Admin Calls | Number of Dropped Calls | No. of Total Calls Received | % of Total Calls | Number of Admin Calls | Number of Dropped Calls |
| December | 74,223 | 86.38% | 18,886 | 42,367 | 1,140 | 11,830 | 2,221 | 2.58% | 87 | 47 |

| 2016 | 9-1-1 Call Volume by Agency | | | | | | | |
|----------|--------------------------------|------------------|-----------------------|-------------------------|--------------------------------|------------------|-----------------------|-------------------------|
| | Emergency Medical Services | | | | Ocean Safety | | | |
| | Number of Total Calls Received | % of Total Calls | Number of Admin Calls | Number of Dropped Calls | Number of Total Calls Received | % of Total Calls | Number of Admin Calls | Number of Dropped Calls |
| December | 8,788 | 10.23% | 871 | 130 | 59 | 0.07% | 53 | 8 |

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

| 2016 | 9-1-1 Call Volume by Agency | | | | | | | | | | | | | | | | | |
|---------|--------------------------------|------------------|------------------------|----------------------------|--------------------|----------------------|-----------------------------|------------------|--------------------|----------------------|-----------------------------|------------------|--------------------|----------------------|-----------------------------|------------------|--------------------|----------------------|
| | Honolulu Police Department | | | | | | Honolulu Fire Department | | | | Emergency Medical Services | | | | Ocean Safety | | | |
| | Number of Total Calls Received | % of Total Calls | No. of Emergency Calls | No. of Non Emergency Calls | No. of Admin Calls | No. of Dropped Calls | No. of Total Calls Received | % of Total Calls | No. of Admin Calls | No. of Dropped Calls | No. of Total Calls Received | % of Total Calls | No. of Admin Calls | No. of Dropped Calls | No. of Total Calls Received | % of Total Calls | No. of Admin Calls | No. of Dropped Calls |
| JAN | 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 | 69,658 | 86.73% | 18,803 | 38,227 | 1,217 | 11,411 | 1,957 | 2.44% | 58 | 0 | 7,851 | 9.78% | 647 | 109 | 70 | 0.09% | 59 | 8 |
| JULY | 74,558 | 86.11% | 20,966 | 40,311 | 1,282 | 11,999 | 2,750 | 3.18% | 93 | 0 | 8,693 | 10.04% | 837 | 116 | 73 | 0.08% | 69 | 19 |
| AUG | 74,042 | 86.52% | 41,441 | 19,624 | 1,191 | 11,786 | 2,535 | 2.96% | 67 | 0 | 8,284 | 9.68% | 701 | 115 | 42 | 0.05% | 41 | 1 |
| SEPT | 68,803 | 86.98% | 18,589 | 38,759 | 1,171 | 10,284 | 1,783 | 2.25% | 62 | 0 | 7,792 | 9.85% | 645 | 215 | 51 | 0.06% | 50 | 2 |
| OCT | 71,700 | 85.92% | 19,437 | 39,569 | 1,246 | 11,448 | 2,385 | 2.86% | 74 | 0 | 8,652 | 10.37% | 1,214 | 90 | 48 | 0.06% | 47 | 0 |
| NOV | 68,572 | 85.82% | 17,756 | 38,623 | 1,050 | 11,143 | 2,755 | 3.45% | 76 | 0 | 7,941 | 9.94% | 709 | 110 | 47 | 0.06% | 44 | 11 |
| DEC | 74,223 | 86.38% | 18,886 | 42,367 | 1,140 | 11,830 | 2,221 | 2.58% | 87 | 47 | 8,788 | 10.23% | 871 | 130 | 59 | 0.07% | 53 | 8 |
| YTD | 871,720 | | 253,556 | 462,389 | 14,344 | 141,431 | 28,990 | | 992 | 47 | 98,150 | | 8,768 | 1,509 | 710 | | 657 | 89 |
| MON AVG | 72,643 | 86.39% | 21,130 | 38,532 | 1,195 | 11,786 | 2,416 | 2.87% | 83 | 4 | 8,179 | 9.74% | 731 | 126 | 59 | 0.07% | 55 | 7 |

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December 1, 2016 - December 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.

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TEXT TO 911 – CURRENT MONTH – DECEMBER 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.
- In a press conference on October 13, 2016, an official announcement was made by the Governor of the State of Hawaii introducing “TEXT TO 911” as an emergency public service now available in the State of Hawaii.

| 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 | 137 | 135 | 1 | 0 | 0 | 1 |
| July | 156 | 143 | 1 | 1 | 0 | 11 |
| August | 133 | 115 | 2 | 3 | 0 | 13 |
| September | 148 | 130 | 2 | 1 | 0 | 15 |
| October | 209 | 195 | 10 | 4 | 0 | 0 |
| November | 219 | 198 | 11 | 0 | 0 | 10 |
| December | 390 | 181 | 5 | 0 | 0 | 204 |
| YTD | 2046 | 1633 | 64 | 18 | 0 | 331 |
| Monthly Avg. | 170.5 | 136.1 | 5.3 | 1.5 | 0.0 | 27.6 |

NOTE:

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

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December 1, 2016 - December 31, 2016

WIRELESS PSAP TESTING – DECEMBER 2016

| OAHU CIVILIAN - DECEMBER 2016 | | | | | | |
|-------------------------------|---------|--------------|----------------|------------|----------------|----------------------|
| Date | WSP | Sites Tested | Sectors Tested | Tested By: | Test Pass/Fail | Comments: |
| 12/6/2016 | AT&T | 1 | 6 | Oahu PSAP | Pass | |
| 12/8/2016 | Verizon | 7 | 50 | Oahu PSAP | Pass | 4 testers |
| 12/9/2016 | AT&T | 1 | 14 | Oahu PSAP | Pass | 15 sectors scheduled |
| | | | | | | |

NOTES:

- There were six (6) scheduled Wireless 911 Tests for the Oahu Civilian PSAP in December, 2016.

WIRELESS PSAP TESTING – YEARLY TOTALS 2016

| OAHU CIVILIAN - 2016 | | | | | | |
|---|---------|--------------|----------------|------------|----------------|-----------|
| WIRELESS 911 PSAP TESTING TOTALS 2016 | WSP | Sites Tested | Sectors Tested | Tested By: | Test Pass/Fail | Comments: |
| | AT&T | 5 | 67 | Oahu PSAP | Pass | |
| | SPRINT | 1 | 4 | Oahu PSAP | Pass | |
| | VERIZON | 160 | 529 | Oahu PSAP | Pass | |
| | Total | 166 | 600 | | | |

NOTES:

The Oahu Civilian PSAP tested a total of 166 cell tower sites and 600 cell sectors in 2016.

FOR YOUR INFORMATION

A “911 Wireless Testing Holiday Blackout” was in effect starting on December 11th, 2016 until January 3rd, 2017 for Kauai PD, Maui PD, Molokai PD, and the Honolulu PD PSAPs. Hawaii County PD PSAP extends their blackout until January 17th, 2017 due to new PSAP equipment installation.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – DECEMBER 2016

| OAHU CIVILIAN | 9-1-1 TRANSACTIONS | | | | | | | | |
|------------------|--------------------|----------|---------------|------------|----------|---------------------------------|--------|---------|-----------------------------------|
| | Total | MSAG | ALI Submitted | | | Open ALI Discrepancy Records | | | Customer Addresses Affected |
| 2016 | | MSAG (A) | TN CR (B) | ALI DR (C) | VoIP (D) | TNCR | ALI DR | VoIP DR | |
| 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 | 133 | 46 | 87 | 0 | 0 | 280 | 0 | 0 | 3,537 |
| JULY | 117 | 29 | 86 | 2 | 0 | 208 | 0 | 0 | 2,561 |
| AUGUST | 108 | 29 | 79 | 0 | 0 | 156 | 0 | 0 | 724 |
| SEPTEMBER | 79 | 14 | 65 | 0 | 0 | 93 | 1 | 0 | 208 |
| OCTOBER | 68 | 24 | 43 | 1 | 0 | 93 | 0 | 0 | 3,336 |
| NOVEMBER | 61 | 9 | 52 | 0 | 0 | 94 | 0 | 0 | 128 |
| DECEMBER | 67 | 11 | 56 | 0 | 0 | 80 | 0 | 0 | 147 |
| TOTAL YTD | 1,200 | 280 | 909 | 10 | 1 | | | | 13,362 |
| AVG PER MONTH | 100 | 23 | 76 | 1 | 0 | | | | 1,114 |

Definitions

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

(B) **Telephone Number Change Request** - Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 199 attached to them which indicates the need for validation.

(C) **Automatic Location Information Discrepancy Record** - Represents an address discrepancy discovered during a live 9-1-1 call, from a landline. These record corrections are treated with a higher priority and should be processed within 48 hours as a general guideline.

(D) **Voice over Internet Protocol Discrepancy Record** - Represents an address discrepancy discovered during a live 9-1-1 call, from a VoIP phone. These record corrections are treated with a higher priority and should be processed within 72 hours as a general guideline per Time Warner Operations Center. MSR tracking effective April 2014.

Oahu Civilian E9-1-1 Status Report

December 1, 2016 - December 31, 2016

MSAG CURRENT MONTH NOTES:

A total of **67** MSAG transactions were processed in 9-1-1 Net during the month of December 2016. Eleven (**11**) 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 **147** customer ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

56 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 80 Open TN CR Transactions as of December 31, 2016.**
- **Refer to chart in the next section “TNCR Current Status”**

80 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 West for correction, it must be verified against HT records and/or approved by the customer. West’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 December 31, 2016.**
- **There is zero Open VoIP DR as of December 31, 2016.**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – DECEMBER, 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 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 | OPENED TNCRS REFERRED TO TELCO BY WEST SAFETY SERVICES | TOTAL UNOPENED TNCR RECORDS |
| OAHU CIVILIAN | 80 | 0 | 74 | 6 |

| STATUS |
|--|
| <u>TOTAL TNCRs SUBMITTED</u> - The total number of TNCR requests for modification that have been submitted in 9-1-1 |
| <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 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. |

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CHARTER COMMUNICATIONS (TIME WARNER) VOIP DATABASE TNCR

Akimeka received Automatic Location Identification (ALI) records from Charter Communications (formally known as Time Warner) which is the predominant Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka had access to these ALI Records, Akimeka was able to perform a three way comparison. This comparison is a validation of the ALI Record to ensure the location as provided by the VoIP provider matches the GIS Information utilized by the Public Safety Agencies within their specific County 9-1-1 Service Area. This validation reduces the potential of address or location dispute during a 9-1-1 call.

The Analysis of the database records indicated there were invalid MSAG addresses utilized by the VoIP Provider, however, the majority of these records were corrected, or sent back to Charter for further location clarifications. Akimeka was able to verify the majority of the VoIP records had a valid MSAG address assigned and matched with the GIS information. Akimeka has also initiated a correction process with Charter Communications on behalf of the PSAPs in order to perform timely corrections to the remaining VoIP 9-1-1 Records, and to ensure new VoIP customers receive valid MSAG addresses to improve their 9-1-1 location service.

| Charter Communications 9-1-1 Telephone Number Location Change Request (Telephone Number Change Request (TNCR) Status) | | | |
|--|---|---|---|
| PSAP | TOTAL RECORDS SUBMITTED BY CHARTER (A) | RECORDS REQUIRING FURTHER INFORMATION BY CHARTER (B) | RECORDS CORRECTED AND RETURNED TO CHARTER BY AKIMEKA (C) |
| HAWAII County | 19,135 | 5 | 33 |
| KAUAI County | 7,911 | 7 | 39 |
| MAUI County | 15,629 | 0 | 7 |
| OAHU Civilian | 82,256 | 5 | 66 |
| TOTAL | 124,931 | 17 | 145 |

| | |
|------------|---|
| (A) | VoIP Database records submitted by Charter to Akimeka for research and MSAG address validation. |
| (B) | Akimeka was not able to determine an MSAG valid address with the information provided. Charter is advised to contact customer and provide Akimeka with a TMK or driving directions. |
| (C) | Akimeka researched and provided Charter with an MSAG valid address. |

Oahu Civilian E9-1-1 Status Report

December 1, 2016 - December 31, 2016

MSAG COMMUNITIES PROJECT -- COMPLETED

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 counter-clockwise 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 **November 30, 2016**:

| MSAG COMMUNITY (In Order of Effort) | MSAG COMMUNITY AND STREET SEGMENT SWEEP -- PHASE VII | | | | GIS UPDATES | |
|--|--|------------------------------|----------------------------|---|---------------------------------|-------------------------------------|
| | TARGET START DATE | TARGET COMPLETION DATE | 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 | | 11/14/14 | 11/21/14 |
| Hauula | 11/12/14 | 11/17/14 | 11/06/14 | | | |
| 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 | | 02/19/15 | 02/25/15 |
| Mokuleia | 01/30/15 | 02/05/15 | 02/12/15 | | | |
| Kalaniana'ole Hwy Project | 02/09/15 | 03/04/15 | 02/19/15 | | | |
| Makaha | 03/05/15 | 03/12/15 | 02/17/15 | | 03/20/15 | 04/02/15 |
| Waianae | 03/13/15 | 03/24/15 | 03/09/15 | | | |
| Mali | 03/25/15 | 04/02/15 | 03/17/15 | | | |
| 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 | |

Oahu Civilian E9-1-1 Status Report

December 1, 2016 - December 31, 2016

MSAG Community and Street Segment Sweep – Phase VII continued

| MSAG COMMUNITY (In Order of Effort) | MSAG COMMUNITY AND STREET SEGMENT SWEEP -- PHASE VII | | | | GIS UPDATES | |
|--|--|------------------------------|----------------------------|---|---------------------------------|-------------------------------------|
| | 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, 08/21/15 | |
| Kunia | 09/08/15 | 09/11/15 | 08/26/15 | | | |
| 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 | |
| McGrew PT | 02/03/16 | 02/04/16 | 01/20/16 | ArcGIS License Issues at HPD on workstation | 01/22/16 | |
| Halawa | 02/05/16 | 02/08/16 | 01/20/16 | | | |
| Aliamanu | 02/12/16 | 02/17/16 | 01/21/16 | | | |
| Moanalua T | 02/18/16 | 02/23/16 | 01/26/16 | | | |
| Hale Moku | 02/24/16 | 02/29/16 | 01/26/16 | | | |
| 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 | ArcGIS License Item was resolved | 02/19/16 | 02/23/16 |
| Airport | 03/11/16 | 03/25/16 | 02/12/16 | | | |
| Catlin Pk | 03/28/16 | 03/31/16 | 02/16/16 | | | |
| Miller Pk | 04/01/16 | 04/05/16 | 02/19/16 | | | |
| Halsey T | 04/06/16 | 04/11/16 | 02/22/16 | | 03/04/16 | 03/15/16 |
| Radford T | 04/12/16 | 04/14/16 | 02/23/16 | | | |
| Mapunapuna | 04/15/16 | 04/20/16 | 03/03/16 | | | |
| 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 | 06/24/16 | ArcGIS License Issues at HPD on workstation | 04/01/16 - 05/27/16 | |
| Nuuanu | 06/22/16 | 07/07/16 | 06/28/16 | | 06/24/16 | |
| Punchbowl | 07/08/16 | 07/20/16 | 07/07/16 | | 07/08/16 | |
| Downtown | 07/21/16 | 08/02/16 | 07/20/16 | | 07/22/16 | 08/08/16 |
| Kakaako | 08/03/16 | 08/08/16 | 07/20/16 | | | |
| Ala Moana | 08/09/16 | 08/11/16 | 07/26/16 | | 08/05/16 | 08/19/16 |
| Honolulu | 08/12/16 | 08/29/16 | 08/02/16 | | | |
| Makiki | 08/30/16 | 09/07/16 | 08/08/16 | | 08/19/16 | |
| Manoa | 09/08/16 | 09/27/16 | 09/01/16 | Motorola ftp issue delayed ArcMap connection | 09/02/16 | |

Oahu Civilian E9-1-1 Status Report

December 1, 2016 - December 31, 2016

MSAG Community and Street Segment Sweep – Phase VII continued

| MSAG COMMUNITY (In Order of Effort) | MSAG COMMUNITY AND STREET SEGMENT SWEEP -- PHASE VII | | | | GIS UPDATES | |
|--|--|------------------------------|----------------------------|-------------------------|---------------------------------|-------------------------------------|
| | TARGET START DATE | TARGET COMPLETION DATE | AKIMEKA COMPLETION DATE | NOTES/COMMENTS | DATE GIS DELIVERED TO HPD | DATE GIS LOADED TO CAD BY HPD |
| McCully | 09/28/16 | 10/12/16 | 09/19/16 | | 09/16/16 | 09/29/16 |
| Ft Derussy | 10/13/16 | 10/13/16 | 09/21/16 | | 09/30/16 | |
| Waikiki | 10/14/16 | 10/26/16 | 09/27/16 | | | |
| Kahala | 10/27/16 | 11/08/16 | 10/05/16 | | 10/14/16 | |
| Kapahulu | 11/09/16 | 11/17/16 | 10/11/16 | FTP connectivity issues | 10/28/16 | |
| Kaimuki | 11/18/16 | 12/19/16 | 11/03/16 | | 11/11/16 | |
| Waialae | 12/20/16 | 12/28/16 | 11/07/16 | | | |
| Aina Haina | 12/29/16 | 01/11/17 | 11/14/16 | | 11/23/16 | |
| Hawaii Kai | 01/12/17 | 02/08/17 | 11/29/16 | | 12/09/16 | |

The Phase VII Project was completed on November 29, 2016, three months ahead of schedule. Akimeka is now entering a review process throughout the month of January and will make further updates island-wide as needed.

Oahu Civilian E9-1-1 Status Report

December 1, 2016 - December 31, 2016

3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – DECEMBER 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 GIS Delivered | Other/Remarks | |
| | Date Created/ Edits Performed | | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | | |
| Address Points | 12/30/2016 | | Added thirty-two (32) address points in Waialae | |
| | 12/30/2016 | | Added one (1) building number in Waialae | |
| | 12/30/2016 | | Added fifteen (15) address points in Kaneohe | |
| | 12/30/2016 | | Added nineteen (19) address points in Kahala | |
| | 12/30/2016 | | Deleted two (2) location names in Haleiwa | |
| | 12/30/2016 | | Added one (1) location name in Haleiwa | |
| | 12/30/2016 | | Spatially corrected eighty-four (84) address points in Haleiwa | |
| | 12/29/2016 | | Deleted one (1) address point in Haleiwa | |
| | 12/29/2016 | | Added two (2) location names in Haleiwa | |
| | 12/29/2016 | | Spatially corrected one hundred twenty-four (124) address points in Haleiwa | |
| | 12/29/2016 | | Added one hundred four (104) address points in Kaneohe | |
| | 12/28/2016 | | Added one (1) location name in Sunset | |
| | 12/28/2016 | | Added one (1) address point in Sunset | |
| | 12/28/2016 | | Deleted two (2) address points in Sunset | |
| | 12/28/2016 | | Corrected two (2) tmk in Sunset | |
| | 12/28/2016 | | Spatially corrected one hundred ninety-four (194) address points in Sunset | |
| | 12/28/2016 | | Added seventy-six (76) address points in Waialae | |
| | 12/28/2016 | | Added twenty-seven (27) address points in Manoa | |
| | 12/27/2016 | | Added six (6) address points in Kahuku | |
| | 12/27/2016 | | Added one (1) location name in Kahuku | |
| | 12/27/2016 | | Spatially corrected fifteen (15) address points in Kahuku | |
| | 12/27/2016 | | Added one (1) building number in Kahuku | |
| | 12/27/2016 | | Added sixty-nine (69) address points in Kahala | |
| | 12/27/2016 | | Added two (2) building numbers in Laie | |
| | 12/27/2016 | | Added one (1) apartment number in Laie | |
| | 12/27/2016 | | Added forty-six (46) address points in Laie | |
| | 12/27/2016 | | Added one (1) building number in Downtown | |
| | 12/27/2016 | | Added thirty-one (31) address points in Downtown | |
| | | 12/23/16 | | |
| | 12/23/2016 | | | Added one (1) building number in Waianae |
| | 12/23/2016 | | | Spatially corrected one (1) address point in Waianae |
| | 12/23/2016 | | | Added forty-five (45) address points in Waianae |

Oahu Civilian E9-1-1 Status Report

December 1, 2016 - December 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.

| OAHU CIVILIAN | | | |
|--|----------------------------------|--------------------|--|
| Type of Layer | Akimeka GIS Server | Date GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Address Points | 12/23/2016 | | Added thirty-five (35) address points in Kahala |
| | 12/23/2016 | | Added one (1) building number in Kahala |
| | 12/23/2016 | | Added one (1) building number in Kahuku |
| | 12/23/2016 | | Added one hundred seven (107) address points in Kahuku |
| | 12/22/2016 | | Deleted three (3) address points in Laie |
| | 12/22/2016 | | Added two (2) location names in Laie |
| | 12/22/2016 | | Added one (1) apartment number in Laie |
| | 12/22/2016 | | Corrected two (2) apartment numbers in Laie |
| | 12/22/2016 | | Spatially corrected one hundred thirty-four (134) address points in Laie |
| | 12/22/2016 | | Spatially corrected three (3) address points in Kahuku |
| | 12/22/2016 | | Added one (1) location name in Kahuku |
| | 12/22/2016 | | Added thirteen (13) address points in Kaimuki |
| | 12/22/2016 | | Added six (6) building numbers in Kaimuki |
| | 12/22/2016 | | Spatially corrected one (1) address point in Kapahulu |
| | 12/22/2016 | | Added one (1) building number in Kapahulu |
| | 12/22/2016 | | Added six (6) address points in Kapahulu |
| | 12/21/2016 | | Spatially corrected twenty-one (21) address points in Kaaawa |
| | 12/21/2016 | | Added one (1) location name in Kaaawa |
| | 12/21/2016 | | Spatially corrected sixty-six (66) address points in Punaluu |
| | 12/21/2016 | | Deleted one (1) address point in Punaluu |
| | 12/21/2016 | | Added two (2) location names in Hauula |
| | 12/21/2016 | | Spatially corrected one hundred two (102) address points in Hauula |
| | 12/21/2016 | | Deleted three (3) address points in Hauula |
| | 12/21/2016 | | Added one (1) routing id in Hauula |
| | 12/21/2016 | | Corrected one (1) apartment number in Hauula |
| | 12/21/2016 | | Added one (1) address point in Hauula |
| | 12/21/2016 | | Spatially corrected one hundred (100) address points in Laie |
| | 12/21/2016 | | Added two (2) location names in Laie |
| | 12/21/2016 | | Added five (5) address points in Laie |
| | 12/20/2016 | | Added seven (7) address points in Hawaii Kai |
| | 12/20/2016 | | Deleted two (2) address points in Hawaii Kai |
| | 12/20/2016 | | Added one (1) location name in Hawaii Kai |

Oahu Civilian E9-1-1 Status Report

December 1, 2016 - December 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.

| OAHU CIVILIAN | | | |
|--|----------------------------------|--------------------|---|
| Type of Layer | Akimeka GIS Server | Date GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Address Points | 12/20/2016 | | Spatially corrected nineteen (19) address points in Hawaii Kai |
| | 12/20/2016 | | Spatially corrected one (1) address points in Waimanalo |
| | 12/20/2016 | | Corrected eight (8) address points in Kailua |
| | 12/20/2016 | | Deleted one (1) address point in Kailua |
| | 12/20/2016 | | Spatially corrected fifty (50) address points in Kaneohe |
| | 12/20/2016 | | Added nine (9) location names in Kaneohe |
| | 12/20/2016 | | Added four (4) address points in Kaneohe |
| | 12/20/2016 | | Deleted three (3) address points in Kaneohe |
| | 12/20/2016 | | Corrected one (1) address in Kaneohe |
| | 12/20/2016 | | Deleted two (2) location names in Kaneohe |
| | 12/20/2016 | | Corrected one (1) location name in Kaneohe |
| | 12/20/2016 | | Spatially corrected thirty-one (31) address points in Kaaawa |
| | 12/20/2016 | | Deleted three (3) address points in Kaaawa |
| | 12/19/2016 | | Deleted one (1) location name in Hawaii Kai |
| | 12/19/2016 | | Added one (1) routing id in Hawaii Kai |
| | 12/19/2016 | | Added fourteen (14) location names in Hawaii Kai |
| | 12/19/2016 | | Added sixteen (16) address points in Hawaii Kai |
| | 12/19/2016 | | Deleted two (2) address points in Hawaii Kai |
| | 12/19/2016 | | Corrected one (1) tmk in Hawaii Kai |
| | 12/19/2016 | | Spatially corrected eight hundred sixteen (816) address points in Hawaii Kai |
| | 12/16/2016 | | Deleted two (2) address points in Hawaii Kai |
| | 12/16/2016 | | Added one (1) location name in Hawaii Kai |
| | 12/16/2016 | | Added one (1) address point in Hawaii Kai |
| | 12/16/2016 | | Spatially corrected one thousand three hundred forty-four (1344) address points in Hawaii Kai |
| | 12/15/2016 | | Added three (3) location names in Hawaii Kai |
| | 12/15/2016 | | Deleted two (2) location names in Hawaii Kai |
| | 12/15/2016 | | Added one (1) address point in Hawaii Kai |
| | 12/15/2016 | | Spatially corrected two thousand one hundred thirty-one (2131) address points in Hawaii Kai |
| | 12/15/2016 | | Spatially corrected nine (9) locations in Hawaii Kai |
| | 12/14/2016 | | Deleted four (4) address points in Hawaii Kai |
| | 12/14/2016 | | Added one (1) location name in Hawaii Kai |

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December 1, 2016 - December 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.

| OAHU CIVILIAN | | | |
|--|----------------------------------|--------------------|--|
| Type of Layer | Akimeka GIS Server | Date GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Address Points | 12/14/2016 | | Spatially corrected two thousand one hundred forty-five (2145) address points in Hawaii Kai |
| | 12/13/2016 | | Added one (1) location name in Aina Haina |
| | 12/13/2016 | | Spatially corrected forty-four (44) address points in Aina Haina |
| | 12/13/2016 | | Added sixty-four (64) address points in Hawaii Kai |
| | 12/13/2016 | | Added one (1) location name in Hawaii Kai |
| | 12/13/2016 | | Spatially corrected one thousand one hundred forty (1140) address points in Hawaii Kai |
| | 12/12/2016 | | Deleted five (5) address points in Aina Haina |
| | 12/12/2016 | | Added one (1) location name in Aina Haina |
| | 12/12/2016 | | Spatially corrected three hundred sixty (360) address points in Aina Haina |
| | | 12/09/16 | |
| | 12/9/2016 | | Added one (1) location name in Aina Haina |
| | 12/9/2016 | | Deleted five (5) address points in Aina Haina |
| | 12/9/2016 | | Corrected one (1) address in Aina Haina |
| | 12/9/2016 | | Spatially corrected one thousand seventy-one (1071) address points in Aina Haina |
| | 12/9/2016 | | Spatially corrected thirty-seven (37) address points in Hawaii Kai |
| | 12/8/2016 | | Deleted one (1) location name in Aina Haina |
| | 12/8/2016 | | Spatially corrected nine hundred seventy-one (971) address points in Aina Haina |
| | 12/7/2016 | | Spatially corrected ninety-eight (98) address points in Aina Haina |
| | 12/6/2016 | | Added one (1) routing id in Waialae |
| | 12/6/2016 | | Deleted two (2) address points in Waialae |
| | 12/6/2016 | | Spatially corrected five hundred fifty-seven (557) address points in Waialae |
| | 12/6/2016 | | Added five (5) location names in Aina Haina |
| | 12/6/2016 | | Corrected one (1) tmk in Aina Haina |
| | 12/6/2016 | | Added four (4) address points in Aina Haina |
| | 12/6/2016 | | Added two (2) aliases in Aina Haina |
| | 12/6/2016 | | Corrected two (2) addresses in Aina Haina |
| | 12/6/2016 | | Spatially corrected one thousand three hundred seventy-one (1371) address points in Aina Haina |
| | 12/6/2016 | | Added one (1) address point in Kalaeloa |
| | 12/5/2016 | | Added one (1) location name in Kaimuki |

Oahu Civilian E9-1-1 Status Report

December 1, 2016 - December 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.

| OAHU CIVILIAN | | | |
|--|----------------------------------|--------------------|--|
| Type of Layer | Akimeka GIS Server | Date GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Address Points | 12/5/2016 | | Deleted one (1) address point in Kaimuki |
| | 12/5/2016 | | Spatially corrected two hundred twenty-one (221) address points in Kaimuki |
| | 12/5/2016 | | Deleted two (2) address points in Waialae |
| | 12/5/2016 | | Deleted one (1) location name in Waialae |
| | 12/5/2016 | | Added one (1) location name in Waialae |
| | 12/5/2016 | | Added one (1) address point in Waialae |
| | 12/5/2016 | | Added one (1) apartment number in Waialae |
| | 12/5/2016 | | Spatially corrected two thousand ninety (2090) address points in Waialae |
| | 12/2/2016 | | Deleted four (4) address points in Kaimuki |
| | 12/2/2016 | | Corrected one (1) TMK in Kaimuki |
| | 12/2/2016 | | Spatially corrected two (2) address points in Ewa Beach |
| | 12/2/2016 | | Spatially corrected two (2) address points in Nuuanu |
| | 12/2/2016 | | Spatially corrected one (1) address point in Kalihi |
| | 12/2/2016 | | Spatially corrected one thousand two hundred twenty-one (1221) address points in Kaimuki |
| | 12/1/2016 | | Added two (2) location names in Kaimuki |
| | 12/1/2016 | | Corrected three (3) tmk in Kaimuki |
| | 12/1/2016 | | Deleted six (6) address points in Kaimuki |
| | 12/1/2016 | | Spatially corrected eight hundred forty-four (844) address points in Kaimuki |
| Airports | | | |
| Bridges | | | |
| Building Footprints | | | |
| Bus Stops | | | |
| Churches | | | |
| Coastal Names | | | |
| Coastline | | | |
| Common Places | | 12/23/16 | |
| | 12/23/2016 | | Spatially corrected one (1) location in Kapahulu |
| | 12/23/2016 | | Spatially corrected four (4) locations in Kahuku |
| | 12/20/2016 | | Spatially corrected three (3) locations in Hawaii Kai |
| | 12/20/2016 | | Corrected three (3) locations in Kailua |
| | 12/20/2016 | | Spatially corrected twenty-four (24) locations in Kaneohe |
| | 12/19/2016 | | Spatially corrected forty-two (42) locations in Hawaii Kai |

Oahu Civilian E9-1-1 Status Report

December 1, 2016 - December 31, 2016

MAPPING LAYERS UPDATED (PART VI)

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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Common Places | 12/16/2016 | | Spatially corrected ten (10) locations in Hawaii Kai |
| | 12/14/2016 | | Spatially corrected one (1) location in Hawaii Kai |
| | 12/13/2016 | | Spatially corrected one (1) location in Aina Haina |
| | 12/13/2016 | | Spatially corrected twenty (20) locations in Hawaii Kai |
| | 12/12/2016 | | Spatially corrected five (5) locations in Aina Haina |
| | | 12/09/16 | |
| | 12/9/2016 | | Spatially corrected four (4) locations in Aina Haina |
| | 12/8/2016 | | Spatially corrected two (2) locations in Aina Haina |
| | 12/6/2016 | | Spatially corrected fifteen (15) locations in Aina Haina |
| | 12/5/2016 | | Spatially corrected two (2) locations in Kaimuki |
| | 12/5/2016 | | Spatially corrected twenty-four (24) locations in Waialae |
| | 12/2/2016 | | Spatially corrected two (2) locations in Kaimuki |
| | 12/1/2016 | | Spatially corrected five (5) locations in Kaimuki |
| Correctional Facilities | | | |
| Emergency Callboxes | | | |
| Emergency Operation Centers | | | |
| Emergency Shelters | | | |
| ESZ/ESN | 12/12/2016 | | Corrected boundary for ESN 131 |
| 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 | | | |

Oahu Civilian E9-1-1 Status Report

December 1, 2016 - December 31, 2016

MAPPING LAYERS UPDATED (PART VII)

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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| 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 | | | |
| Points of Interest | | | |
| | | | |
| Police Beats | | | |
| Police Districts | | | |
| Police Response Areas | | | |
| Police Stations | | | |
| Post Offices | | | |
| Schools | | | |
| Street Centerlines | 12/27/2016 | | Split six (6) street segments in Ala Moana |
| | 12/27/2016 | | Added thirty (30) street segments in Ala Moana |
| | | 12/23/16 | |
| | 12/23/2016 | | Corrected seven (7) elevations in Mililani |
| | 12/21/2016 | | Split one (1) street segment in Kaaawa |
| | 12/16/2016 | | Added nineteen (19) street segments in Ewa Beach |
| | 12/16/2016 | | Split one (1) street segment in Ewa Beach |
| | 12/12/2016 | | Split one (1) street segment in Mililani |

Oahu Civilian E9-1-1 Status Report

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MAPPING LAYERS UPDATED (PART VIII)

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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| Street Centerlines | 12/12/2016 | | Split six (6) street segments in Airport |
| | 12/12/2016 | | Split two (2) street segments in Waipio |
| | 12/12/2016 | | Split one (1) street segment in Kalihi |
| | 12/12/2016 | | Split one (1) street segment in Honolulu |
| | 12/12/2016 | | Split one (1) street segment in Kapahulu |
| | 12/12/2016 | | Split one (1) street segment in Downtown |
| | 12/12/2016 | | Split one (1) street segment in Waikiki |
| | | 12/09/16 | |
| | 12/7/2016 | | Split six (6) street segments in Pearl City |
| | 12/7/2016 | | Split six (6) street segments in Waipio |
| | 12/7/2016 | | Split nine (9) street segments in Mililani |
| | 12/7/2016 | | Split two (2) street segments in Kaneohe |
| | 12/7/2016 | | Split two (2) street segments in Honolulu |
| | 12/7/2016 | | Split two (2) street segments in Kaimuki |
| | 12/7/2016 | | Split one (1) street segment in Waipahu |
| | 12/7/2016 | | Split one (1) street segment in Kalihi |
| | 12/7/2016 | | Split four (4) street segments in Hawaii Kai |
| | 12/7/2016 | | Split one (1) street segment in Nuuanu |
| | 12/7/2016 | | Split one (1) street segment in Waialae |
| | 12/7/2016 | | Split one (1) street segment in Aiea |
| | 12/7/2016 | | Corrected range to four (4) street segments in Mililani |
| | 12/1/2016 | | Added one (1) street segment in Kaimuki |
| | 12/1/2016 | | Split one (1) street segment in Kaimuki |
| | 12/1/2016 | | Split one (1) street segment in Wahiawa |
| Subdivisions | | | |
| Tow Jurisdictions | | | |
| Tsunami Evacuation Zones | | | |
| Tsunami Heights | | | |
| Waste Water Plants | | | |

Oahu Civilian E9-1-1 Status Report

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MAPPING LAYERS UPDATED (PART IX)

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 GIS Delivered | Other/Remarks |
| | Date Created/ Edits Performed | | |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically) | | | |
| WSP Cell Sectors | 12/14/2016 | | Per AT&T CRS |
| | | 12/09/16 | |
| | 12/8/2016 | | Per Sprint CRS |
| | 12/6/2016 | | Per AT&T CRS |
| | 12/2/2016 | | Per VZW CRS |
| WSP Cell Towers | 12/14/2016 | | Per AT&T CRS |
| | | 12/09/16 | |
| | 12/8/2016 | | Per Sprint CRS |
| | 12/6/2016 | | Per AT&T CRS |
| | 12/2/2016 | | Per VZW CRS |

| GIS Summary for 2016 | | |
|--|---------|---|
| OAHU CIVILIAN | | |
| Type of Layer | Totals | Remarks |
| CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE | | |
| Address Points | 119,078 | Approximate number of new and/or edited *Address Points added to the Oahu Civilian GIS map and database in 2016. |
| Street Centerlines | 9,007 | Approximate number of new and/or edited *Street Centerlines added to the Oahu Civilian GIS map and database in 2016. |
| Points of Interest | 3,032 | Approximate number of new and/or edited *Points of Interest/Common Name Places added to the Oahu Civilian GIS map and database in 2016. |

* Specific details available upon request.

NOTE:

The above summary does not capture the entire GIS effort for the 2016 year, only a list of some of the more critical layer updates. There were a significant amount of updates that took place with other layers such as response layers, and other supporting GIS information. Also, for a summary regarding wireless updates, please refer to the CRS sections to see the 2016 year totals, which are also largely impacting to the PSAPs.

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December 1, 2016 - December 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 |
|------------|---|
| 12/23/2016 | Street Centerlines, Common Places, Police Beats, MSAG Communities to HPD for Motorola CAD |
| 12/23/2016 | Street Centerlines, Address Points, Fire Response Areas, Medic Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for TriTech CAD |
| 12/9/2016 | Street Centerlines, Common Places, Police Beats, MSAG Communities to HPD for Motorola CAD |
| 12/9/2016 | Street Centerlines, Address Points, Fire Response Areas, Medic Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for TriTech CAD |
| 12/9/2016 | Address Points, Common Places, Street Centerlines, Cell Towers, Cell Sectors to the Honolulu MapFlex system for HPD, HFD, EMS, and Ocean Safety |

POLICE BEATS CORRECTIONS

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

Akimeka had completed the Police Beats review process and corrections on November 2, 2016. All recommend changes to the written descriptions were sent to HPD PMT. The final Police Beats GIS data was provided for the HPD CAD system on November 11, 2016.

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.

Oahu Civilian E9-1-1 Status Report

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MAPFLEX SYSTEM

During the month of December 2016, the MapFlex system received one manual update as a result of MapFlex having several issues pertaining to the automated upload processes.

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

Due to the issues MapFlex is having regarding the automatic updates, all of the PSAPs had agreed to hold on all GIS updates until West has made the necessary system changes. Manual GIS uploads took place on December 9, 2016.

1. Akimeka delivered GIS data to the MapFlex system on the following dates in December 2016
 - a. **Hawaii County** – December 9, 2016
 - b. **Maui County** – December 9, 2016
 - c. **Kauai County** – December 9, 2016
 - d. **Honolulu** – December 9, 2016
2. Although there were no official confirmation that the manual updates were completed, Akimeka confirmed on December 20th that the GIS data was successfully updated in the MapFlex system.

MAPFLEX ISSUE

During the month of August 2016, there were some identified issues regarding the MapFlex system, some of which were a continuation of previous issues identified.

On August 3, 2016, during the all PSAP conference call with West, Akimeka, and Hawaiian Telcom also in attendance, there were several issues that were discussed.

1. There was an upload issue with the Kauai MapFlex system on July 24, 2016 which was related to an issue which Maui PD experienced earlier in the year. The MapFlex screen went blank and there was no mapping capability.
 - a. West relayed that there is an issue with the automatic update script and there are updates required for them to make to the system.
 - b. All of the PSAPs agreed to hold off on all GIS updates in MapFlex until West has resolved the issue.
2. The MapFlex system began displaying wireless information incorrectly during the month of August 2016.
 - a. The issue described is that when wireless calls are coming into the PSAPs, the ALI information appears to be correct and it matches with the GIS data, so it subsequently displays a Phase I location for Phase I calls. What is occurring directly after this, is the MapFlex system is doing a reverse query for additional information in the GIS and this is overriding the ALI information with the closest address in the GIS.
 - b. West and HT are looking into the issue and are planning a software update that should help resolve the issue.
3. The Text-to-911 icons have stopped displaying at the PSAPs.
 - a. It was identified that the icons for text calls have stopped displaying in the MapFlex maps. Previously when calls came in as a text call, there would be an icon displaying “TEXT” where the call was plotted.
 - b. West and HT will be researching the issue.
4. Throughout October 2016 West and HT continued to work on the patches to fix some of the above issues.
5. During November 2016, the updates were installed on the MapFlex systems throughout the State of Hawaii.
 - a. After the updates had taken place, issues were identified with the display of Phase I coverage areas in MapFlex – identified by the Honolulu Fire Department. In addition, the only information that was being displayed for Phase I calls were Lat/Longs with a static coverage of approximately 330 meters for all calls. The issue was first identified when calls had plotted in the ocean, while the caller was surely on land.

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- b. The issue was brought to West and HT's attention for resolution.
- c. West had worked internally with their team and determined that it was an issue with the confidence with Sprint wireless and that Sprint was the source of the issue in MapFlex.
- d. The discussions on this issue circled for some time throughout November without resolution until it was discovered later in November that the reason the coverage area was not being displayed was due to the MapFlex upgrade that was installed. After installation, the configurations for Wireless Phase I were not set up properly by West, in which the mapping did not point to the correct information in MapFlex.
- e. The additional issue with MapFlex plotting the centroid of the sector as the tower location still remains and is being troubleshooted by West and HT.
- f. West and HT will be following up with the PSAPs with a resolution in December 2016.
- g. The next conference call with West, HawaiianTel, and the PSAPs is scheduled for January 11th.

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 October 3, 2016 and November 21, 2016. There were no Street Checks performed in December, 2016.

| Street Utility Check | | | | |
|-----------------------------|--------------------------|-----------|------------|--------------------------|
| | First Report 06/01/13 | 10/3/2016 | 11/21/2016 | Improvements/Corrections |
| Total Number of GIS Records | 26,602 | 29,655 | 29,752 | Increased by 97 records |
| Errors Identified | | | | |
| Zero Errors | 5,112 | 18 | 6 | Decreased by 12 errors |
| Low > High Errors | 3 | 0 | 0 | No change |
| Mixed Parity Errors | 1 | 0 | 0 | No change |
| Changed Parity Errors | 105 | 3 | 0 | Decreased by 3 errors |
| Address Gap Errors | 2,629 | 2 | 1 | Decreased by 1 error |
| Address Overlap Errors | 423 | 3 | 1 | Decreased by 2 errors |
| Flipped Link Errors | 1,030 | 620 | 277 | Decreased by 343 errors |
| Total Errors | 9,303 | 646 | 285 | Decreased by 361 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.

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4. E9-1-1 DATABASE SYNCHRONIZATION

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

Next Scheduled Database Synchronization – January 2017

AUDIT SUMMARY RESULTS – 2016 -- TBA

AUDIT SUMMARY RESULTS – JANUARY 1, 2017 MSAG VS. OCTOBER 1, 2016 MSAG -- TBA

AUDIT SUMMARY RESULTS – OCTOBER 1, 2016 MSAG VS. JULY 1, 2016 MSAG CONTINUED

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

AUTOMATIC LOCATION IDENTIFICATION (ALI) DISCREPANCY REPORT -- TBA