Medford City Council
Medford, Massachusetts

The Nineteenth Regular Meeting, November 10, 2026

This meeting took place in the City Council Chamber, 2nd Floor, Medford City Hall, 85 George P. Hassett Drive, Medford, MA and via Zoom.

CALL TO ORDER

President Zac Bears called the Nineteenth Regular Meeting of the Medford City Council to order in the Council Chambers and via Zoom.

ROLL CALL

Present: President Bears; Vice President Lazzaro; Councilor Callahan; Councilor Leming; Councilor Scarpelli; Councilor Tseng. Six members were present and one member was absent (Councilor Mullane). Inside the Rail: City Clerk Laurel Siegel.

SALUTE TO THE FLAG

ANNOUNCEMENTS, ACCOLADES, REMEMBRANCES, REPORTS, and RECORDS

Resolution of the Medford City Council Honoring and Commending the Men and Women Who Have Served in the United States Armed Forces on the Eve of Veterans Day
Offered by George Scarpelli, City Councilor

Whereas, the liberties of the City of Medford and the nation are secured through the valor and sacrifice of the U.S. Armed Forces, whose members leave their families behind to serve in times of peace and conflict; and

Whereas, veterans and their families demonstrate profound courage, resilience, and patriotism, making it fitting on the eve of Veterans Day for the Medford community to express our deep gratitude for all our veterans

26-198 - Resolution to Invite Residents to Participate in the MAMAS Free Store on November 14th and the City's Winter Preparedness Event on November 19th
Offered by Isaac Bears, Council President

Be it Resolved by the Medford City Council that we invite residents to attend Mutual Aid of Medford and Somerville's (MAMAS) Free Store on November 14th from 10am-2pm at East Somerville Community School to shop for donated winter clothes and coats free of charge; and

Be it Resolved that we invite residents to participate in the City's Winter Preparedness Event on November 19th from 5:00-7:00 pm at City Hall, which will include a winter clothing giveaway, energy bill check-ups, a vaccine clinic, MassHealth/Health Connector assistance, and information on heating assistance.

Motion by Councilor Tseng to approve, seconded by Vice President Lazzaro. Approved on a Voice Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

Records

The Records of the Special Meeting of October 21, 2026 were passed to Vice President Lazzaro, who found them to be in order.

The Records of the Meeting of October 27, 2026 were passed to Vice President Lazzaro, who found them to be in order.

The Records of the Special Meeting of November 2, 2026 were passed to Vice President Lazaaro, who found them to be in order.

Motion by Vice President Lazzaro to join and approve the records, seconded by Councilor Tseng. Approved on a Voice Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

Reports of Committees

26-172 & 26-182 – Public Works and Facilities Committee October 21, 2026

Public Works and Facilities Committee October 21, 2026 Meeting Report

Motion by Councilor Callahan to approve, seconded by Vice President Lazzaro. Approved on a Voice Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

HEARINGS

26-195
Petition for Grant of Location – National Grid 60-157 Fulton Street

26-037

RECEIVED
CITY CLERK
MEDFORD, MASS.
2026 OCT 29 AM 11:12

PETITION FOR GRANT OF LOCATION
NATIONAL GRID, NORTH ANDOVER, MASSACHUSETTS,
PETITION FOR A PROPOSED GAS MAIN REPLACEMENT
60-157 FULTON STREET, and BROGAN ROAD
(NATIONAL GRID PLAN #: **WO- 18746013**)
MEDFORD, MASSACHUSETTS
CITY CLERK'S OFFICE

You are hereby notified that by order of the Medford City Council, the Medford City Council will hold a Public Hearing in the Howard F. Alden Chambers at Medford City Hall, 85 George P. Hassett Drive, Medford, and via Zoom on Tuesday November 10, 2026 at 7:00 p.m., a link to be posted no later than Friday, November 6, 2026, on a petition by Boston Gas Company dba National Grid, for permission of a proposed gas main replacement at 60-157 Fulton Street.

Wherefore it requests that after due notice and hearing as provided by law, it be granted a location for and permission to install **approximately 1,665 feet of replacement gas main along Fulton Street and Brogan Road** WO# 18746013 by petition originally dated October 2, 2026 and revised October 20, 2026 and received and filed in the Office of the City Clerk on October 29, 2026 and available for inspection in the Office of the City Clerk, Medford City Hall, Room 103, 85 George P. Hassett Drive, Medford, Massachusetts 02155.

The Engineering Division recommends that this grant of location be approved with the following conditions:

1. The Grant of Location (GOL) is limited to approximately 1,665 feet of 6-inch gas main within the northern and eastern portions of the Fulton Street, and Brogan Road right of way as depicted on the Plan.
2. Before starting work, the contractor shall notify Digsafe and shall obtain all applicable permits from the Engineering Division. The project must obtain a Trench Permit pursuant to Section 74-141 of the City Ordinances prior to commencing work.
3. No other utility structures, conduits, duct banks, pipes, or any other appurtenances are adversely impacted. National Grid shall ensure that all sewer, water, and drain lines are marked prior to any excavation.
4. At least 72 hours prior to the start of the project, National Grid must coordinate abutter communications with the Director of Communications and submit any required information that may be requested to effectively inform the public.
5. Any proposed gas main location must maintain 3 feet away from public utilities.
6. An approved as-built plan (and CAD files in the state plane) must be on file at the engineering division at the completion of the project.

Call 781-393-2425 for any accommodations/aids

s/Laurel Siegel
City Clerk

Plans can be viewed in City Clerk's Office, 781-393-2425.

Addressing the Council:
Diane Curran-Cuddy, National Grid
Sharon Deyesso
Tony Leveschia

Motion by Councilor Scarpelli to approve, seconded by Councilor Callahan. Approved on a Roll Call Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

26-196

Public Hearing - Proposed Amendments to the Medford Zoning Ordinance, Chapter 94 (94-7.5 Vacant and Foreclosing Properties)

RECEIVED
CITY CLERK
MEDFORD, MASS.

2026 OCT 21 PM 4:19

26-173

CITY OF MEDFORD

NOTICE OF PUBLIC HEARING

A Public Hearing will be held by the Medford City Council in the Howard F. Alden Memorial Auditorium, City Hall, 85 George P. Hassett Drive, Medford, MA, and via Zoom, on Tuesday, November 10, 2026, at 7:00 p.m. relative to a proposed amendment to the City of Medford Zoning Ordinance to delete Section 94-7.5 (Vacant and Foreclosing Properties).

A link to this hearing and an agenda containing the details of the proposed amendment will be posted to the City's calendar at www.medfordma.org/about/events-calendar no later than Friday November 6, 2026. For additional information, contact the Office of the City Clerk at 781-393-2425.

If you need a reasonable accommodation to attend/participate in this hearing, please contact the ADA Coordinator: Frances N. Nwajei at 781-393-2439 or via email at fnwajei@medford-ma.gov. Please note that while the City will make every effort to fulfill the request, some requests may not be fulfilled due to the hiring and availability of outside contractors.

By order of the Medford City Council.

s/Laurel Siegel
City Clerk

City of Medford
Office of Planning, Development and Sustainability

City Hall - Room 308
85 George P. Hassett Drive
Medford, Massachusetts 02155

Contact:
(781)393-2480
Fax: (781)393-2342
ocd@medford-ma.gov

To: City Council President Zac Bears and Honorable Members of the City Council
From: Danielle Evans, Senior Planner, *on behalf of* the Community Development Board
Date: September 30, 2026
RE: Community Development Board Recommendation: Amend Zoning Ordinance to delete Section 94-7.5 (Vacant and Foreclosing Properties)

On September 16, 2026, the Community Development Board ("CDB") held a duly noticed public meeting to deliberate and vote on a recommendation on the proposed zoning amendment to delete Section 94-7.5 (Vacant and Foreclosing Properties). Board members present at the meeting were Chair Doug Carr, Member John Anderson, Member Sean Beagan, Member Page Buldini, Member Dina Colagerro, and Member Ari Fishman.

Understanding that the new general ordinance (Chapter 10, Article 8) regulating vacant buildings does not go into effect until August 4, 2027, the Board agreed that deletion of Section 94-7.5 should be concurrent with the effective date of Chapter 10, Article 8 so that there is no gap in regulatory power.

Board Member Sean Beagan motioned to recommend that the City Council adopt the amendment to the Zoning Ordinance (Chapter 94) to delete Section 94-7.5, to be effective concurrently with the effective date of Chapter 10, Article 8 (Vacant and Foreclosing Properties) of the Revised Ordinances. Motion seconded by Board Member Buldini. The Board voted unanimously (6-0) by roll call to approve the motion.

cc: Breanna Lungo-Koehn, Mayor
Alicia Hunt, Director of the Office of Planning, Development, and Sustainability
Laurel Siegel, City Clerk

Addressing the Council:
Robert Carney
Denis Dettling Kalthofer

Motion by Councilor Leming to approve and adopt the recommendation of the Community Development Board that the amendment not take effect until August 4, 2027, seconded by Councilor Tseng. Approved on a Roll Call Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

MOTIONS, ORDERS, AND RESOLUTIONS

26-194 - Resolution that the City Administration Provide the City Council with an Update on the Recent Vacancy in the Veterans Department
Offered by George Scarpelli, City Councilor

Resolved that the City Council request that the City Administration provide an update on the recent vacancy in the Veterans Department.

Addressing the Council:
Nina Nazarian, Chief of Staff

Motion by Councilor Scarpelli to approve, seconded by Councilor Callahan. Approved on a Voice Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

26-199 - Resolution to Approve Joint Press Release Regarding Medford High School Project Next Steps
Offered by Isaac Bears, Council President, Emily Lazzaro, Council Vice President

Whereas, the Medford High School Building Committee has completed its work to review and finalize the scope of the project as of October 6, 2026, and has reduced the estimated cost by $150 million since the first estimate of this chosen option; and

Whereas, residents need and deserve full and accurate information about the cost impact of the project on taxpayers; and

Whereas, the City's Financial Task Force established by the Mayor, Council, and School Committee in 2023 has been meeting regularly regarding the MHS project and the ongoing work to determine the correct funding strategy to maximize grant funding and minimize taxpayer impact; and

Whereas, an accurate and vetted estimate of taxpayer impact will be provided by city staff, including the City Assessor and CFO with assistance from the city's bond counsel and the MHS Project Team established as part of the MSBA state funding process; now, therefore:

Be it Resolved by the Medford City Council that we approve the publication of the press release below, and that we schedule a presentation of this work for the February 2, 2027 Joint Meeting of the School Committee and City Council.

Be it Further Resolved that, upon approval by both the City Council and School Committee, this release will be shared by the City of Medford and Medford Public Schools Communication teams via all mail lists, websites, and social media channels currently in use by both teams.

FOR IMMEDIATE RELEASE – November X, 2026
Contact: Steve Smirti and Will Pipicelli

Medford's Elected Officials Support the Medford High School Building Project and Outline Next Steps for Cost Estimates
Estimated tax impacts will be released based on accurate final cost estimates in February after completion of Schematic Design process

(MEDFORD) — Medford's elected officials in the Mayor's Office, City Council, and School Committee support the Medford Comprehensive High School Building Project. The city will release the final tax impact estimate for the debt exclusion in February, once Schematic Design is complete and the city's chosen construction manager, Suffolk Construction, has developed accurate final cost estimates.

The Medford Comprehensive High School Building Committee approved the Project Scope and Space Summary on Tuesday, October 6, 2026, which advances the project to the Schematic Design phase of the MSBA (Massachusetts School Building Authority) process.

Why do we need a new Medford High School?

- **The Medford High School building is more than 50 years old and is deteriorating,** with failing systems that frequently disrupt student learning and create significant stress for students, parents, and staff.
    - Plumbing issues have forced the school to close several weeks ago, causing stress and hassle for students, teachers, and parents.
    - Ongoing and recurring issues include burst heating pipes that force sections of the school to close temporarily; insufficient insulation and HVAC systems that require students to wear winter hats, gloves, and coats in their classrooms while trying to learn; and a leaking roof that requires continuous maintenance even during school hours.
- **Vocational and special education programming require more space.**
    - More than half of MHS students are enrolled in vocational programming, and annually 6-7 programs have a wait list.

    - Special education spaces constrain how we support specialized learning needs.
    - State educational safety standards require larger, updated facilities to meet the significant demand from our Medford students.
- **The cost to renovate in Medford may end up higher than the cost to rebuild.**
    - The MHS Building Committee, architect, and project manager investigated more than 29 options for renovating the current building.
    - Renovating and upgrading the existing High School Building to current building codes, simply "fixing" what exists today and meeting modern safety, building code, and accessibility standards, would cost approximately $478 million.
    - The City would pay the entire cost, without any MSBA state fund reimbursement, because a code-update project would not meet our educational needs, such as expanded vocational and special education programming. Any significant investment in repairs to the building would make a full code upgrade legally required.

What will the cost impact be to Medford residents?

- The City is proposing a debt exclusion for voter approval to pay for this project by repaying construction bonds over 30 years.
- Based on the most recent estimate for the selected design for the new High School, the total project cost is estimated to be just below $700 million, with the State paying an estimated $226 million and the City paying an estimated $474 million.
- The project team will continue looking for design efficiencies during the design phase, selecting cost-effective materials, and carefully evaluating phasing options so the community rallies behind this much-needed project.
- Final construction cost estimates, the city's share of this project, and the cost impact of the debt exclusion on taxpayers will be available in early February 2027.
- While the MHS Building Committee has already reduced the project's total cost by over $150 million since March, the City can also mitigate cost impacts in multiple ways, including allocating new property tax growth from new development projects, reserving resources now to pay for debt service later, and maximizing all local property tax exemptions available to residents under state law.
- Medford Public Schools staff and MHS project team members have also applied for other state, federal, and private grants and started private fundraising efforts to help fund portions of the project.
- Please visit the MHS Project page (www.medfordhsproject.com) to learn more about the design process, the significant impacts of cost escalations on high school construction projects, and the existing programs at MHS that must be incorporated into the new building.

When can I engage and learn more about the costs and debt exclusion process?

- City Council and School Committee Joint Hearings on 11/30/26, 1/20/27, and 2/2/27
- School Committee Meeting on 1/25/27
- City Council Meeting on 3/9/27
- SBC Community Forums on 11/19/26, 3/4/27, 5/13/27, and 6/2/27
- Upcoming SBC Meetings on 11/16/26, 12/14/26, 1/7/27, 2/1/27, 2/10/27, 2/22/27, 3/22/27, 4/14/27, and 5/31/27
- New MHS Project Website (medfordhsproject.com)

The City of Medford Financial Task Force members are: Mayor Breanna Lungo-Koehn, Mayor's Chief of Staff Nina Nazarian, City Council President Zac Bears, City Council Vice President Emily Lazzaro, School Committee Vice Chair and MHS Building Committee Chair Jenny Graham, and School Committee Member Mike Mastrobuoni. The Financial Task Force is supported by members of the Medford Public Schools staff, members of the City finance staff, and the Owner's Project Manager and Architect from the MHS Building Project Team.

Addressing the Council:
Robert Carney
Nick Guirleo
Paul Gerety
Dina Caloggero
Lorna Wilkerson
Rick Orlando
Sharon Deyesso
Paulette Vartabedian
Micah Kesselman

Motion by President Bears to approve, as amended by Councilor Scarpelli to have a mechanism in the joint meetings to receive comments and questions from the public and provide responses, and to expand the financial team, including the City's Assessor and Finance Director, to work with the Financial Task Force, seconded by Councilor Tseng. Approved on a Voice Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

26-200 - Resolution Inquiring Into the Contractual and Community Impacts of the Sale of Cataldo Ambulance Service
Offered by George Scarpelli, City Councilor, Anna Callahan, City Councilor, Isaac Bears, Council President

Whereas, emergency medical services and reliable ambulance transport are critical components of public safety, health, and welfare for the residents of our community; and

Whereas, Cataldo Ambulance Service currently serves as the primary provider of emergency medical and transport services under negotiated agreements with the city; and

Whereas, reports and discussions have emerged regarding a potential sale of Cataldo Ambulance Service; and

Whereas, any transition in ownership, management, or corporate structure of a primary emergency services vendor introduces potential uncertainties regarding service continuity, response times, staffing levels, and the enforcement of existing public agreements; and

Whereas, the City Council seeks to proactively protect the public interest, ensure strict adherence to previously negotiated terms, and understand any legal or operational contingencies available to the municipality; now, therefore:

Be it Resolved by the Medford City Council that we respectfully request that the City Administration, including the Mayor's Office, and relevant public safety officials, to provide a formal update and comprehensive analysis regarding the potential sale of Cataldo Ambulance Service; and

Be it Further Resolved that this inquiry specifically requests the Administration to clarify:

1. The exact legal and contractual impacts a sale would have on the community and the active agreements currently in place.
2. Whether existing contracts contain assignability clauses, performance guarantees, or change-of-control provisions that protect the city's interests.
3. What measures the Administration is taking to guarantee that emergency medical service levels, response times, and local staffing remain uncompromised.

Be it Further Resolved that the City Council receive an update on businesses that have complained that Cataldo Ambulance is using their private parking lots as bases of operations due to the continued lack of a fixed base of operation for Cataldo in the City of Medford.

Be it Finally Resolved that the Administration be requested to provide a written response or appear before the City Council at it's next regularly scheduled meeting to brief the body on these matters.

Addressing the Council:
Robert Cataldo, Cataldo Ambulance
Patrick Tyler, Cataldo Ambulance

Motion by Councilor Scarpelli to approve, seconded by Councilor Tseng. Approved on a Voice Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

COMMUNICATIONS FROM THE MAYOR

26-133
Capital Stabilization Fund Appropriation Request
(Request 2 – Police Chief Search)
Submitted by Mayor Breanna Lungo-Koehn

MEDFORD, MASSACHUSETTS
MAYOR BREANNA LUNGO-KOEHN

July 9, 2026

Via Electronic Delivery
To the Honorable President and
Members of the Medford City Council
Medford City Hall
85 George P. Hassett Drive
Medford, MA 02155

Re: Capital and General Stabilization Fund Appropriation Requests

Dear President Bears and City Councilors:

I respectfully request and recommend that your Honorable Body approve appropriations from the:

1. Capital Stabilization Fund in the amount of Five Hundred Seventy-One Thousand Five Hundred Fifty Dollars and Zero Cents ($571,550.00) on the following items:
    a. Roberts Hot Water Tank Replacement for $250,000;
    b. Interactive Panels for Classrooms for $180,000;
    c. Address Facilities Conditions Assessment Projects at Schools for $75,000;
    d. Defibrillator Replacements at Schools for $25,000;
    e. Conceptual Building Study and Construction Cost Estimate for Oak Grove Building for $24,550; and
    f. Admins Server Replacement for $17,000.

    Given the appropriations made on June 23, 2026, the balance of the Capital Stabilization Fund before this vote is $13,000,000.

2. General Stabilization Fund in the amount of Thirty-Five Thousand Dollars and Zero Cents ($35,000.00) for an executive search and recruitment company to hire a new police chief.

    The balance of the General Stabilization Fund before this vote is $6,000,000. As the Council knows, Free Cash is not available this time of year, and where this is not a capital item, the only remaining source that would be acceptable would be General Stabilization Fund. Small amounts out of this fund will not impact the City's bond rating.

A School Department representative will be in attendance for items 1.a through d, DPW Commissioner Tim McGivern will be in attendance for item 1.e, IT Director Richard Lane will

MEDFORD, MASSACHUSETTS
MAYOR BREANNA LUNGO-KOEHN

be in attendance for item 1.f and Human Resources Director Lisa Crowley and Police Chief Jack Buckley will be in attendance for item 2.

Thank you for your kind attention to these matters.

Respectfully submitted,

Breanna Lungo-Koehn
Mayor

Addressing the Council:
Nina Nazarian, Chief of Staff

Motion by Vice President Lazzaro to approve, seconded by Councilor Callahan. Approved on a Roll Call Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

26-201

Capital & General Stabilization Fund Appropriation Requests

Submitted by Mayor Breanna Lungo-Koehn

MEDFORD, MASSACHUSETTS
MAYOR BREANNA LUNGO-KOEHN

November 4, 2026

Via Electronic Delivery
To the Honorable President and
Members of the Medford City Council
Medford City Hall
85 George P. Hassett Drive
Medford, MA 02155

Re: Capital & General Stabilization Fund Appropriation Requests

Dear President Bears and Members of the City Council:

I respectfully request and recommend that your Honorable Body approves the following appropriations from the:

1. Capital Stabilization Fund in the amounts of:

    a. Eighty-Five Thousand Dollars and Zero Cents ($85,000.00) to fund schematic drawings and feasibility study (phase 1) for the Recreation Center Rehabilitation project; and
    b. Seventy-One Thousand Dollars and Zero Cents ($71,000) to fund repairs and weatherproofing at the Fire Headquarters, including, but not limited to, window replacement and resealing windows.

The Capital Stabilization Fund has a balance of $11,182.980.00.

2. General Stabilization Fund in the amount of Twenty-Four Thousand Four Hundred Seventy-Six Dollars and Forty-Four Cents ($24,476.44) to fund repairs at the old police station given a flooding event.

    As of the writing of this paper, the balance of the General Stabilization Fund before this vote is $5,960,000.00. (A request to appropriate $35,000.00 for an executive search and recruitment company to hire a new police chief is still pending.)

Facilities Director David MacIntyre will be available for questions.

Thank you for your kind attention to this matter.

85 George P. Hassett Drive, Medford, MA 02155
781-396-5500 * www.medfordma.org

MEDFORD, MASSACHUSETTS
MAYOR BREANNA LUNGO-KOEHN

Respectfully submitted,

Breanna Lungo-Koehn
Mayor

Addressing the Council:
David MacIntyre, Facilities Director
Nina Nazarian, Chief of Staff

Motion by Councilor Tseng to approve, seconded by Vice President Lazzaro. Approved on a Roll Call Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

26-202
Supplemental Appropriation for the Fiscal Year 2027 (Law Department)
Submitted by Mayor Breanna Lungo-Koehn

MEDFORD, MASSACHUSETTS
MAYOR BREANNA LUNGO-KOEHN

November 5, 2026

Via Electronic Delivery
To the Honorable President and
Members of the Medford City Council
Medford City Hall
85 George P. Hassett Drive
Medford, MA 02155

Re: Supplemental Appropriation for the Fiscal Year 2027

Dear President Bears and Members of the City Council:

I respectfully request and recommend that your Honorable Body approves the following supplemental appropriation for Fiscal Year 2027, to fully restore the balance of the proposed Law Department budget originally presented on June 4, 2026:

Salaries	$127,803.44
Ordinary	$141,492.37
Total	**$269,295.81**

And to meet this appropriation, the sum of Two Hundred Sixty-Nine Thousand Ninety-Five Dollars and Eighty-One Cents ($269,295.81) be raised and appropriated from the Fiscal Year 2027 tax levy.

Chief of Staff Nina Nazarian will be in attendance to address questions of the Council. Please note that CoS Nazarian is not available on November 17th which will be the last opportunity to levy these funds, given as you know, the Tax Classification hearing has been scheduled for November 17, 2026 and once the Council takes the votes at the hearing, we will no longer be able to raise and appropriate any further funding in FY27. Approving these funds by or before the Tax Classification hearing would also avoid a scenario where we leave up to $269,295.81 unlevied.

Thank you for your kind attention to this matter.

Sincerely,

Breanna Lungo-Koehn
Mayor

Addressing the Council:
Nina Nazarian, Chief of Staff

Motion by Councilor Leming to table until November 17, 2026, seconded by Councilor Tseng. Approved on a Roll Call Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

COMMUNICATIONS FROM CITY OFFICERS AND EMPLOYEES

26-197
Medford Fire Department Unmanned Aircraft System (UAS) Standard Operating Procedure Use Policy under CCOPS Ordinance
Submitted by the Fire Department

MEDFORD FIRE DEPARTMENT
120 Main Street
Medford, Massachusetts 02155-4510
Emergency - 911
Business (781) 396-9400
FAX: (781) 396-4377
Fire Prevention (781) 396-9931

October 28, 2026

To: Honorable Members of the Medford City Council

Re: Medford Fire Department – Unmanned Aircraft System (UAS) Program and Ordinance 877 Compliance

Dear Members of the City Council,

The Medford Fire Department has established an Unmanned Aircraft System (UAS) Program to enhance emergency response capabilities, improve situational awareness, and increase the safety of both emergency personnel and the community. Utilizing an aircraft equipped with high-resolution visual and thermal imaging capabilities, the Department can provide Incident Commanders with real-time aerial information during structure fires, hazardous materials incidents, search and rescue operations, natural disasters, and other public safety emergencies. This technology allows personnel to evaluate hazardous conditions, locate individuals in distress, identify potential dangers, and make more informed operational decisions while minimizing unnecessary exposure to dangerous environments. The program operates under applicable Federal Aviation Administration (FAA) authorizations and established departmental operating procedures.

The Department recognizes the importance of protecting individual privacy, civil rights, and civil liberties as outlined in Medford Ordinance 877, *An Ordinance to Promote Transparency and Protect Civil Rights and Civil Liberties with Respect to Surveillance Technology*. The UAS Program is intended exclusively to support legitimate fire, rescue, and emergency management functions, rather than routine surveillance or monitoring of the general public. Aircraft deployments will be incident-driven, limited to legitimate operational objectives, and conducted without discriminatory or viewpoint-based targeting. Departmental policies will establish appropriate safeguards governing the collection, access, storage, retention, and dissemination of imagery and other information obtained during operations, ensuring that such information is managed responsibly and in accordance with applicable laws and City requirements.

The Medford Fire Department is committed to maintaining transparency and accountability regarding the use of this technology and to satisfying the applicable review, approval, and reporting requirements established under Ordinance 877. The Department welcomes City Council oversight and the opportunity to provide its operational procedures, proposed surveillance use policies, and supporting documentation for public review. Our objective is to establish a responsible and transparent UAS Program that respects the rights of Medford residents while providing firefighters with a valuable tool to protect lives, property, and public safety.

Attached to this letter is a more in-depth explanation of how the Medford Fire Department will comply with Section 50-73

Respectfully,

Chief Todd Evans
Medford Fire Department

Section 50-73 Surveillance Impact Report and Surveillance Use Policy Submission

(B) Surveillance Impact Report

1. The UAS utilized by the Medford Fire Department is an Autel EVO Max 4T XE. The UAS will be operated by a licensed and department-certified pilot. This platform has been designed specifically for public safety and industrial use. Its payload features a wide-angle camera, zoom camera, and thermal camera.
2. This equipment will be used to provide Incident Commanders with an overhead view of major incidents in order to make better informed safety decisions.
3. The equipment will be deployed for incidents including, but not limited to, structure fires, brush fires, hazardous materials incidents, major accidents, missing persons, and rescue operations, fire investigations, or any other situation where the safety of members of the Department or public may be in jeopardy.
4. The only fiscal impact would be the initial purchase cost of the UAS itself and supporting equipment (i.e. batteries, replacement propellors). There are no subscriptions or other reoccurring costs incurred by the Department or City.
5. (a) It is the policy of the Medford Fire Department that the operation of UAS shall be carried out in a manner that respects and protects personal privacy consistent with the United States Constitution and Federal, State, and local laws. The impact on privacy and civil liberties shall be balanced against the governmental interests leading to deployment. As such, the Medford Fire Department shall not retain any photographs or video recordings of any incidents or training missions.
   The Medford Fire Department will use the Department of Homeland Security "Best Practices for Protecting Privacy, Civil Rights & Civil Liberties in Unmanned Aircraft Systems Programs" (12/18/2015) as its framework for protection of applicable rights to individuals.
   (b) Medford Fire Department is taking a strict stance on NO data retention of any kind that may adversely impact civil liberties and civil rights. The use of this equipment is a live-feed directly to Incident Commanders. More information can be found in the MFD UAS Standard Operating Procedure.
   - Page 4-5, "Legal Authority"
   - Page 6, "Authorized Departmental Use of UAS"
   - Page 7, "Prohibited UAS Uses", specifically bullet point 1
   - Page 13, "Misuse/Abuse"
   - Page 30, "Data Collection and Use"
   - Page 30, "Data Retention"

(C) Surveillance Use Policy: Attached to this document is the Medford Fire Department's UAS Standard Operating Procedure. Below will be cited references and locations within the SOP and how it correlates to the listed items in Section C. Further information will be given if not explicitly stated in the policy.

1. Purpose - Page 3: Scope
2. Authorized Use - Page 6: Authorized Departmental Use of UAS
3. Data Collection –
   (a) Page 30: Data Collection and Use
   (b) Page 30: Data Retention
   (c) Page 30: Request for Deletion of Accidental Recording
4. Data Protection – Page 31-32: Cyber Security
5. Data Retention – Page 30: Data Retention

Medford Fire Department is taking a strict stance on zero data retention with the use of UAS outside of the FAA-mandated flight data. Medford Fire Department does not have the computer hardware equipment necessary to retain the large amounts of data that would be produced by recording multiple hours of footage of incidents. If MFD were to record any photos or videos of incidents, that data would need to be retained for a period of 5 years, as it would be directly tied to an incident report. The other reason MFD will not retain any data is to protect the public's Civil Rights and 4th Amendment Rights to privacy. The UAS is being used as a decision-making tool, not for public surveillance.

6. Surveillance Data Sharing – Page 30: Data Collection and Use

As MFD will not retain any data outside of the FAA-mandated flight logs, there is no surveillance data to share with other governmental agencies, departments, bureaus, divisions, or units. The "MFD Master Flight Log" can be made available upon request. The information the flight log contains is the date of flight, the flight's purpose, how long the UAS operated, and the pilot and crew.

7. Demands for Access to Surveillance Data – Page 13: Misuse/Abuse
8. Auditing and Oversight: Page 8: Organizational Accountability and Oversight – UAS Program Coordinator
9. Complaints – Page 13: Misuse/Abuse

A copy of the draft Procedure is attached hereto.

Motion by Vice President Lazzaro to send the Paper to the Public Health and Community Safety Committee, seconded by Councilor Scarpelli. Approved on a Voice Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

PUBLIC PARTICIPATION

Addressing the Council:
Andrew Dall and Rick Paone addressing traffic safety concerns at Fulton and Sturgis Streets.

26-204 – Resolution to Arrange Traffic Site Visit at Fulton and Sturgis Streets
Offered by George Scarpelli, City Councilor

Motion by Councilor Scarpelli to coordinate a site visit with residents in the neighborhood, City Councilors, Director of Traffic and Transportation Todd Blake, and to invite State Representative Paul Donato, and to request a stop sign at the intersection of Sturgis Street and Morgan Avenue, seconded by Councilor Tseng. Approved on a Voice Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

Addressing the Council:
Micah Kesselman

UNFINISHED BUSINESS

26-003	**Appointment of a City Messenger for 2026 and 2027**	
IN CITY COUNCIL	JANUARY 6, 2026	
TABLED		
26-063	**Resolution to Update the Ordinance Establishing the Medford Commission for Persons with Disabilities**	
IN CITY COUNCIL	JULY 14, 2026	APPROVED FOR FIRST READING
ADVERTISED	JULY 30, 2026	MEDFORD TRANSCRIPT & SOMERVILLE JOURNAL
IN CITY COUNCIL	AUGUST 4, 2026	ELIGIBLE FOR THIRD READING

Reports Due/Deadlines

16-574	University Accountability Report (Next Report Due in November 2026)
22-026	Quarterly Presentation on City's Financial Health by Chief Financial Officer/Auditor
22-027	Monthly Copy of Warrant Articles from Chief Financial Officer/Auditor

ADJOURNMENT

Motion to adjourn made by Councilor Leming, seconded by Vice President Lazzaro. Approved on a Voice Vote of Six in favor, Zero opposed, One absent (Councilor Mullane).

President Bears adjourned the meeting.

A true copy, Attest.



Laurel Siegel
City Clerk

PURPOSE

The Purpose of this procedure is to provide members of the Medford Fire Department (MFD) with a set of operational guidelines intended to promote safe, efficient, and lawful operation of Unmanned Aircraft Systems (UAS). This document identifies the responsibilities, requirements, and operations of the Department's UAS program.

The MFD's primary purpose for integrating UAS technology into its initial hazard-mitigation deployment model is to increase the Incident Commander's (IC) "situational awareness" by providing a unique aerial perspective that assists the IC in fully understanding the challenges of a given incident in "real time"; thus, providing critical information necessary to guide decision-making. Ultimately, those decisions impact the risk posed to firefighters and equipment.

POLICY

It shall be the policy of the Medford Fire Department to use UAS to enhance the Department's mission of protecting lives and property. Any use of UAS will be in strict accordance with federal, state, and local laws, including compliance with Constitutional and Privacy Rights, and FAA regulations.

DEFINITIONS AND ABBREVIATIONS

Above Ground Level (AGL): AGL is the altitude expressed in the actual number of feet measured above the ground.

Air Traffic Control (ATC): Manages traffic from the airport to a radius of 3 to 30 miles. Provides pilots taxiing and take-off instructions, air traffic clearance, and advice based on their own observations and experience. Maintains separations between landing and departing aircraft, transfers control of aircraft to the enroute center controllers when the aircraft leave their airspace and receives control of aircraft on flights entering their airspace.

Beyond Visual Line of Sight (BVLOS): The operation of UAS at distances outside the visual line of sight (VLOS), as defined herein.

Certificate of Authorization (COA): Issued by the FAA and grants permission to fly within specific boundaries and parameters.

Federal Aviation Administration (FAA): Federal agency in the United States and part of the Department of Transportation (DOT). The FAA regulates US civil aviation, US commercial space transportation, operates control towers, builds, installs, and maintains electronic aids to navigation, and registers all pilots and aircraft in the United States.

National Airspace System (NAS): The NAS is made up of a network of air navigation facilities, ATC facilities, airports, technology, and appropriate rules and regulations that are needed to operate the system.

Navigable Airspace: FAA-controlled airspace classified as: A, B, C, D, E, and G.

Notice to Airmen (NOTAM): A NOTAM is time-critical information concerning the establishment, condition, or change in any component in the NAS. The NOTAM provides knowledge that is essential to personnel concerned with flight operations in designated areas. NOTAMs may be filed as a temporary change to the NAS as they were not known in advance to publish on aeronautical charts or other operational publications.

Personal Identifying Information: For purposes of this policy, this includes a person's date of birth, social-security number, personal telephone number, home address, personal email address, official state or government-issued driver's license or identification number.

Remote Pilot-in-Command (RPIC): Person who has final authority and responsibility for the operation and safety of flight, has been designated as the RPIC before or during the flight, and holds the appropriate category, class, and type rating, if applicable, for the conduct of the flight. Pilots are authorized to evaluate and accept or decline any mission or portion thereof due to safety concerns.

Person Manipulating the Controls: A person who is manipulating the UAS flight controls. The RPIC must be able to take control of the UAV from the person manipulating the controls in case of an emergency. This can be done by standing close enough to physically

take the controller, by using a secondary controller, or use of a pre-programmed safe-mode system.

Unmanned Aircraft Vehicle (UAV): A powered, aerial vehicle that uses aerodynamic forces to provide vehicle lift, can fly autonomously or be piloted remotely, and can be expendable or recoverable. Refers more specifically to the unmanned aircraft itself.

Unmanned Aircraft System (UAS): Consists of an unmanned aircraft weighing less than 55 lbs., the command system, a secure control link, camera, and other related safety support equipment, including ground control base stations and specialty vehicles designated to support unmanned flight operations.

Unmanned Aircraft System Crewmember: A Pilot in Command, Visual Observer, or other persons assigned UAS duties for the purpose of the flight.

Visual Line of Sight (VLOS): Visual contact between RPIC or VO and a UAS sufficient to maintain safe operational control of the aircraft, known location, and be able to scan the airspace in which it is operating to see and avoid other aircraft or objects aloft or on the ground. Under the current VLOS COA the RPIC and person manipulating the controls must retain the capability to see the aircraft unaided except for corrective lenses

Visual Observer (VO): the VO is for the visual observation of the UAV while in flight. The VO shall alert the PIC of any conditions (obstructions, terrain, structures, air traffic, weather, etc.) that may affect the safety of flight.

SCOPE

The purpose of this SOP is to provide the process and procedures for the operations and management of any small UAS used by the MFD. It will detail the conditions under which the MFD will utilize UAS technology to maximize efficiency and cost savings while minimizing the risk to first responders, equipment, and the community.

UAS program development is focused on strategic and tactical support of emergency service delivery, planned events, investigations, and training.

LEGAL AUTHORITY

4th Amendment Protections, Privacy and Civil Liberties

It is the policy of the Medford Fire Department that the operation of UAS shall be carried out in a manner that respects and protects personal privacy consistent with the United States Constitution and Federal, State, and local laws. The impact on privacy and civil liberties shall be balanced against the governmental interests leading to deployment. As such, the Medford Fire Department shall not retain any photographs or video recordings of any incidents or training missions. If any photographs or video recordings are taken in error, the UAS Program Coordinator will be notified at the conclusion of the operation, and the photographs or video recordings will be deleted.

The Medford Fire Department will use the Department of Homeland Security "Best Practices for Protecting Privacy, Civil Rights & Civil Liberties in Unmanned Aircraft Systems Programs" (12/18/2015) as its framework for protection of applicable rights to individuals.

The Medford Fire Department prohibits the collection, use, retention, or dissemination of UAS live footage that would:

a. Be used or operated to violate a person's reasonable expectation of privacy, if a warrant has not been obtained, there is no exigency, and/or there is no consent. Some factors to include that may create a reasonable expectation of privacy are: (1) the location is not open to public use; (2) the location is privately owned and the person on the property has the right to control access to the location and exclude others; and (3) the location is one where the owner has taken normal precautions to maintain privacy. A person does not have a reasonable expectation of privacy in public or openly accessible places, or in places that can be viewed by the normal eye.
b. Involve prolonged or extensive tracking or surveillance, over a lengthy period of time, that reveals non-public information, without obtaining a warrant, in violation of a person's 4th Amendment protections. When a person can conduct surveillance with authority or a warrant, a UAV or UAS can also conduct the surveillance.
c. Violate the rights guaranteed under the 1st Amendment of the US Constitution and the right against unreasonable search and seizure under the 4th Amendment of the

US Constitution. In addition, UAS shall not be used to violate any Constitutional rights of any citizen, including Victim's Rights, due process of law, the right to petition and assembly, or the right to freedom of religion.

d. Involve unnecessary stationary surveillance of a private property that is not involved in a critical incident as outlined in the authorized uses; be of a person with a reasonable expectation of privacy, or where there is no exigency or warrant. Incidental and transitory capture of information and images, such as aerial flyovers of homes, neighborhoods, or businesses enroute to an incident are allowable.
e. Harass, coerce, or discriminate against persons based upon their ethnicity, race, age, gender, national origin, religion, sexual orientation, or gender identity, in violation of law.
f. Utilize facial recognition surveillance technologies or software of any kind.
g. Be for personal use of any type.

UAS REMOTE PILOT CERTIFICATION

The MFD and its personnel assigned to UAS operations will adhere to Title 14 of the Code of Federal Regulations, Section 107.12 (14 CFR § 107.12) and will obtain the following certification:

MFD UAS will only be operated by trained, certified and FAA Part 107 licensed pilots who are employees of the Department. These members will successfully complete the following requirements:

- Pass the Unmanned Aircraft General (UAG) – Part 107 Remote Pilot Knowledge Exam.
- Be issued an FAA Remote Pilot Part 107 certificate with a small UAS rating authorized to operate UAS platforms of less than 55 lbs.
- Complete the MFD UAS Training Program.

Initial training and recurrent UAS training will be managed by the MFD UAS Program Coordinator. This training may also be delivered by use of a third party UAS training vendor.

OPERATIONAL GUIDELINES

This procedure is not intended to be all-inclusive, but serves as a supplement to other Department guidelines, FAA regulations, and the aircraft manufacturer's approved user manual.

This procedure has been written to address MFD UAS operations. This procedure will be reviewed and updated periodically, or any time the FAA issues a new advisory or regulation. Any changes to the manual will be communicated as currently dictated by MFD policy. A copy of these guidelines and any updates to them will be issued to each person who has UAS responsibilities and will be posted so all MFD personnel may access it.

AUTHRORIZED DEPARTMENTAL USE OF UAS

The primary role of the UAS is insertion into emergent or ongoing events that pose a risk to public safety or threats to the City's infrastructure by providing "real time" hazard assessment utilizing high resolution (zoom capable) cameras and infrared/thermal sensors.

Although not meant to be "all-inclusive" or exclusive of any emergent incident type, the following are primary scenarios under which a MFD UAS can be requested, deployed, and utilized:

Structure Fires – Deployment of UAS to structure fires, in particular, buildings suspected of structural compromise, i.e. roof, walls, or other components. UAS will be utilized during the initial action phase as well as the extinguishment and overhaul phase of an incident.

Rescue Operations – Deployment of UAS into wildland/woodland areas to verify the existence and location of lost or injured persons and confirm the safest and most effective means of dispatching Department rescue teams to make patient contact and extract them from the area.

Hazardous Materials Operations – Deployment of UAS with dual high-definition/infrared camera capabilities to assist in identifying potential hazardous-materials indicators, affected areas, thermal anomalies, and observable conditions.

Brush Fire Operations – Deployment of UAS within the City of Medford urban interface areas for the purpose of developing hazard mitigation strategies, i.e. structure defense, perimeter control (hot spots) and containment assessment.

Planned Training Events – The use of UAS during planned training exercises are intended to simulate the safe and proficient incorporation of UAS technology during real-world deployment.

Non-Emergent Operations – UAS can be utilized for non-emergent use such as fire investigations, safety, pre-planning, inspections, and training.

PROHIBITED UAS USES

Prohibited uses may include, but are not limited to the following:

- General Surveillance: Monitor members of the public or provide surveillance for law enforcement purposes.
- Lending Equipment: The UAS will NOT be lent to any other department or agency. However, if dispatched or properly requested, the UAS operated by MFD UAS team members, can be utilized in accordance with the provisions of the Department UAS policy and applicable COA, to assist mutual aid partners.
- Exceeding Aircraft Limitations: The UAS shall not be used in a manner contrary to the manufacturer's guidelines or specifications.
- Personal Business: The UAS shall not be used to conduct any personal business other than official Department business.
- "No Fly Zones"/ "No Drone Zones": Certain FAA rules prohibit or restrict UAS operations including, without limitation, (a) national parks, monuments, and landmarks; (b) federal military bases; (c) federal prisons; (d) near, or over wildfires; (e) in, and around stadiums 1 hour before and 1 hour after an event; and (f) nuclear power plants. If the MFD determines it is necessary to operate in a No-Fly Zone, FAA or other appropriate authorization will be obtained prior to UAS deployment.

- Height Restrictions: Per the FAA, UAS may not fly more than 400 feet AGL or higher if the UAV remains within 400 feet of a building or other structure. Reference the VLOS/BVLOS Flight Envelope section for further details.
- Use of UAS to spray, drop, or carry any chemicals or hazardous materials, and carrying weapons of any type or category.
- Manned Aircraft in the Operating Area: UAS flights are prohibited when other governmental aircraft are in the area, unless coordinated flight training has occurred with that agency.
- Beyond Visual Line of Sight: BVLOS operations are authorized only within the limitations and operating conditions established by FAA Waiver 91.113-2026-01101 and any additionally applicable airspace authorization. All BVLOS personnel shall satisfy Department qualification requirements.

ORGANIZATION ACCOUNTABILITY AND OVERSIGHT

The UAS program will be managed and administered by the UAS Program Coordinator. The UAS Program Coordinator will report to the Chief of the Department. Duties and responsibilities will include operations, education, training, procurement, device maintenance, and record management.

UAS Program Coordinator: The Program Coordinator is responsible for the overall direction and performance of the UAS program and will exercise command and control over both.

a. Designated by the Chief.
b. Oversees and is responsible for the entire program, including budget and reporting.
c. Manages the UAS program and ensures that the program operates safely and in accordance with all federal and state regulations.
d. Will authorize personnel as Pilots and Visual Observers.
e. Maintains files for pilots and observers which include copies of FAA certifications, training records, missions flown, etc.
f. Develops and maintains the MFD UAS SOP’s and maintenance schedule.
g. Responsible, in conjunction with the Chief, for investigating reported or suspected misuse or abuse of UAS technologies.

h. Identifies UAS training needs, training options, and opportunities for interagency and third-party collaboration.
i. Tracks and reports any training, certification, records, skills, or equipment deficiencies to the Chief and the Training Division.
j. Ensures that all UAS personnel maintain an up-to-date "pilot logbook" and "task book."
k. Coordinates with manufacturers, service providers, and other agencies to evaluate future program needs.
l. Maintains a working knowledge of current legal and FAA requirements, national operating standards, and a detailed understanding of any UAS platforms operated by the MFD.
m. Reviews and maintains all UAS Deployment Reports.

UAS Remote Pilot in Command (RPIC): The RPIC is responsible for the safe operation of the UAS during a mission or training.

- RPIC UAS operators must be Department personnel and must have at minimum, a current FAA Part 107 license.
- UAS operators must maintain his/her Part 107 license, maintain flight logs and all necessary records to meet FAA requirements.
- UAS operators will also be required to open, complete, and maintain a UAS task book detailing operational proficiency through mission-specific training.
- Complete the requisite 8-hour training designated by the Program Coordinator.
- The UAS RPIC will be the team leader. The RPIC will ultimately be responsible for the operation and is solely responsible for the input of commands of the UAS during flight.
- The RPIC will be responsible for UAS assembly, flight preparation, post-flight procedures, UAS disassembly/storage, and documenting all UAS flights via the UAS Deployment Report.

UAS Visual Observer (VO): The Visual Observer is crucial in ensuring the UAS operates in a safe manner.

- The UAS VO must have, at minimum, completed the Department's Visual Observer Course.
- The VO is equally responsible for the visual observation of the UAS while in flight and to alert the RPIC of any conditions (obstructions, terrain, structures, air traffic, weather, etc.) which may affect the safety of a flight.
- The VO's added function is to coordinate and communicate operations between the RPIC and the IC or their designee.
- The RPIC shall retain overall responsibility for required aviation communications and coordination. When assigned, a qualified Visual Observer may assist with air traffic monitoring, communications, and coordination with the Incident Commander. Such delegation shall not relieve the RPIC of responsibility for safe flight operations or compliance with applicable FAA requirements.

TRAINING

Instructors: The primary instructor(s) will be chosen by the Program Coordinator. These Pilots will be chosen based on UAS experience and operational knowledge within the National Airspace. Through training modules approved by the Program Coordinator, the primary instructor will coordinate training based on the needs of the program. Duties of instructing new members shall fall upon those who have the most flight time and knowledge of UAS operations. Instructors will be designated based on experience and competency with the UAS operation and approved by the Program Coordinator.

Training Policies: Training plans will be developed jointly by the Program Coordinator and the Training Division and will be implemented by approved UAS instructors.

All deployments and/or exercises will be documented and will count toward a member's training. Each member of the UAS program has the responsibility to maintain their own training file and ensure the information is up-to-date, accurate, and complete.

Initial Training: All pilot candidates must complete the MFD UAS "Ground School," regardless of if the person already possesses an FAA Part 107 license. Ground School will be supplemented with hands-on flight training drills, the NIST UAS proficiency course, and mission-specific training to ensure that all Department RPIC's have the skills necessary to safely operate a UAS in the field. The proficiency course is based on the National Institute

of Standards and Technology (NIST) Guide to Measuring and Comparing UAS Capabilities and Remote Pilot Proficiency.

MFD RPIC Certification

Pilots who qualify for MFD UAS RPIC have successfully completed all the requirements listed below and have been certified by a qualified MFD instructor on UAS for day and night missions.

1. RPIC has a current FAA Part 107 Remote Pilot certificate.
2. RPIC has completed the following MFD UAS RPIC Ground School topics:
    - Standard Operating Procedures
    - Mission Planning
    - Issuing of the Drills Handbook
    - UAS Night Operations
    - How the Eye Works
    - Spatial Disorientation and Visual Illusions
    - Improving Your Night Vision
    - Logbook – Every RPIC shall keep a logbook of all training and operations flights – that includes such information as:
        - Date of flight
        - UAS make and model
        - UAS registration number
        - Flight location
        - Mission description
        - Flight start time
        - Duration of flight
        - Weather
        - Maximum altitude
3. RPIC has completed the following MFD UAS RPIC hands-on training
    - Setup
    - Basic flight maneuvers
    - Using the camera

- Setting flight modes
- Night camera operations

4. RPIC has completed the following MFD UAS RPIC proficiency tests based on the NIST Guide to Measuring and Comparing UAS Capabilities and Remote Pilot Proficiencies Using Standard Test Methods:
    - Hold position and altitude
    - Orbit a point
    - Fly straight and level
    - Identify and inspect objects
    - Land accurately

A member is authorized to conduct flight operations as the RPIC when the following criteria have been met:

- UAS RPIC certification completed
- Minimum flight hours on each UAS platform as determined by the Program Coordinator
- RPIC meets all initial and recurrent training requirements.

UAS VISUAL OBSERVER Certification (VO)

A crewmember qualifies as a visual observer for both day and night missions when they have successfully completed all the MFD UAS Visual Observer Course topics listed below and have been certified by a qualified MFD instructor:

- UAS Operations
- Definitions and Roles
- Understanding Airspace, Notice to Airmen (NOTAMs), and Temporary Flight Restrictions (TFR's)
- Night Operations
- How the Eye Works
- Spatial Disorientation and Visual Illusions

Any member that has the status of "pilot" may act as a VO while the RPIC is at the controls of the UAS.

Recurrent Training

All members must maintain proficiency in their RPIC/VO abilities. MFD UAS pilots must record at least 3 takeoffs and landings in the preceding 180 days in each type of aircraft. UAS Pilots are responsible for completing the FAA-mandated Part 107 recurrent training every 24 calendar months and submit the certificate to the UAS Program Coordinator.

RPICs who do not meet the required documented training or flight time within the 180 day period must have flight currency with the UAS Lead Instructor and be signed off by the UAS Program Coordinator before they can be returned to full flight status.

MISUSE/ABUSE

MFD personnel will follow all Department policies outlined in this procedure for all UAS operations conducted by the Department. The public may address UAS complaints through the Chief of the Department at tevans@fire.medford-ma.gov. Complaints needing immediate attention may be directed to the MFD Headquarters business line at (781) 396-9400. All complaints will be reviewed and properly investigated. MFD personnel found in violation of Department policy may be subject to discipline up to and including termination as well as removal from the Department's UAS program.

OPERATIONS

The Medford Fire Department UAS response vehicle will be dispatched to assist responders by providing an aerial view of the incident, thus increasing situational awareness and firefighter safety.

- The Incident Commander will have discretion to downgrade the response
- All Fire Department UAS will be clearly marked with the following:
    - City of Medford/Fire Department logo
    - MFD equipment number
    - FAA registration number or FAA-assigned tail number

- A UAS Team will only be dispatched on specific nature codes that fit within MFD UAS operational guidelines, and any approved FAA COA and/or waiver operational areas.
- Incident Commanders may special-request a UAS Team to an incident via Medford Fire Alarm. As with every incident involving UAS response, it will be up to the UAS Team to determine if the UAS can be deployed safely to achieve the mission objective. If the UAS Team is unsure, they will reach out to the UAS Program Coordinator for assistance.
- All requests for non-emergency UAS flights will be made through the Program Coordinator.

MFD's UAS will be given the designator of "Drone-1" during all flights. Subsequent UASs deployed will be given "Drone-2" and so on. When operating with other agencies (such as Everett or Chelsea Fire) the designator "Medford Drone-1" may need to be used for clarity. This designator is subject to change at any time as determined by the IC, Operations, or the UAS Program Coordinator.

No pilot may act as an RPIC for more than 10 consecutive hours in any 24-hour period.

All requests for UAS assistance will be made through one of the following:

- Medford Fire Alarm
- The UAS Program Coordinator

Rules, regulations, policies, and procedures for flights within MFD's jurisdiction will remain as such should the UAS provide support under any form of request, i.e. mutual aid, etc.

The RPIC will determine if the UAS can be deployed safely, and practically, and will either accept or decline the flight request.

The pilot is ultimately responsible for the UAS operation, and their authority is absolute. If the mission is accepted, the following will take place:

- The pilot will announce when Air Operations is on scene
- The pilot will make an on-scene assessment of the conditions and determine if the UAS can fulfill the requested goals of the mission.

- If the local line-of-sight channels are not available (North Fireground Alpha, Central Fireground Alpha, etc.) the IC will contact Fire Alarm and request a secondary channel to be used for flight team communications when needed.
- Normal pre-flight operations will be initiated including the filing of a NOTAM when required.

No member of MFD (or any other entity), regardless of rank, may order a pilot to:

- Accept a mission.
- Fly outside of FAA, COA, or manufacturer's parameters.
- Violate any rules or regulations that the RPIC feels would put first responders, members of the public, or the flight team at a greater risk than is normally assumed with flight operations.

Should a pilot decline a mission, the pilot must make a written declaration outlining the reason(s) why the mission was not accepted and submit the draft to the Program Coordinator where it will be reviewed and forwarded to the Chief.

SAFETY POLICY

If any UAS Team member observes or has knowledge of an unsafe or dangerous act within the UAS Program, it shall be communicated to the Program Coordinator immediately.

Management will not initiate disciplinary action against personnel who, in good faith, disclose a hazard or safety occurrence due to unintentional conduct.

It is the duty of every UAS Team member involved in any UAS flight to contribute to the goal of continued safe operations. Any safety hazard, whether procedural, operational, or maintenance related should be identified as soon as possible.

Conduct regular audits of safety policies, procedures, and practices.

Monitor the UAS community to ensure best safety practices are incorporated into the organization.

GROUND SAFETY

- The UAS Team will identify and secure a safe location within the operational area for UAS launch and recovery.
- Only mission-essential personnel will be in proximity to UAS launch and recovery activities. When operating near populated areas, the pilot will ensure that a "defined incident perimeter" exists to limit the potential of persons being present beneath the UAS flight path.
- The PIC and VO must always be aware of dangers to ground personnel from moving rotors.
- The pilot shall under no circumstances leave any unauthorized person in charge of the UAS controls while the UAS is running.
- If it is necessary for the pilot to leave the controls of the UAS, the power will be shut down, battery removed, and controls deactivated.
- A pre-flight checklist pertinent to the specific UAS to be flown will be utilized to perform the required checks and risk assessment.

WEATHER

Before launch, a thorough check of the weather will be conducted, and all members of the flight team will be made aware of the findings.

Weather information can be obtained through FAA-approved weather resources.

Pilots will not fly in wind or temperatures outside of the manufacturer's recommendations.

Weather information obtained during the pre-flight phase will be documented in the flight log.

PRE-FLIGHT

Team members will conduct a pre-flight assessment of the incident environment to ensure the proposed operation is within COA guidelines and Department UAS policy. The UAS

Team will determine if safe operation of the UAS can be accomplished as requested by the IC. The decision will be contingent upon several factors to include physical features of the area, obstructions to flight, terrain, and the weather. The RPIC will make the final determination if flight operations can be initiated. The IC team and UAS Team must coordinate before initiating ANY UAS flight operations. When and where appropriate and applicable, team members will ensure that all authority has been obtained.

Before launch, the designated RPIC, assisted by any crewmembers if assigned, must complete a thorough pre-flight inspection. The pre-flight checklist will be utilized to perform the required checks and risk assessment.

(The pre-flight checklist can be located in the Forms Appendix A)

OPERATING AUTHORITY DETERMINATION

Prior to initiating any UAS operation, the RPIC shall identify and verify the FAA operating authority applicable to the proposed mission. This determination shall include the applicable regulatory framework, authorized operating area, airspace classification, altitude restrictions, visual observation requirements, weather limitations, and any required coordination or notification. When operations are conducted under multiple applicable FAA authorizations, all relevant provisions shall be satisfied, and the most restrictive operational condition shall govern unless otherwise authorized by the FAA. The selected operating authority shall be documented in the Department flight record.

VISUAL LINE OF SIGHT (VLOS) OPERATIONS

PURPOSE AND AUTHORITY

This SOP governs Medford Fire Department (MFD) Visual Line of Sight (VLOS) small UAS operations as Public Aircraft Operations under FAA COA 2026-ESA-19370-COA. Its specific Class B authority is limited to the approved six-point operations area in Attachment 1 and the applicable UAS Facility Map (UASFM) altitudes. The COA, application, attachments, applicable Part 91 requirements, and ATC instructions remain controlling. [COA pp. 1-2, 8-11; SP A.1]

PERSONNEL AND VISUAL OBSERVATION

VLOS requirement. The RPIC and person manipulating the controls must remain able to see the aircraft unaided except for corrective lenses throughout flight. Camera/first-person-view imagery does not substitute for visual see-and-avoid. Yield right-of-way to other aircraft. [SP B.1-3]

Visual observers (VOs). A VO may support VLOS/BVLOS situational awareness; qualifying VLOS operations do not require a VO under ATC Procedural C.6. Document PIC/VO night-vision illusion and physiology training before night flight. [SP E.1-2; ATC C.6]

Crew documentation. All operational personnel must read and comply with the COA. Keep a copy readily available at the operating location. No PIC or VO may serve more than one aircraft simultaneously unless separately authorized. [SP A.1-2; B.9]

AUTHORIZED FLIGHT ENVELOPE

Area and altitude. Operate only inside the Attachment 1 Class B boundary and at/below the current published UASFM altitude for the specific location. Review UASFM updates before each flight. Flights beyond the area/altitude require separate FAA authorization; emergency requests use the SGI process. [SP B.5, B.13; ATC E.1]

Aircraft and weather. Maximum takeoff weight is less than 55 lb including attachments; groundspeed must not exceed 87 kt (100 mph). Flight visibility at the control station must be at least 3 statute miles; stay at least 500 ft below and 2,000 ft horizontally clear of clouds. [SP B.4, B.6-8]

Night lighting. Night aircraft must carry anti-collision lighting visible at least 3 statute miles and position lighting permitting determination of aircraft location, altitude, attitude and direction of flight. [SP E.3]

Operations over people. Do not fly over people except direct participants or people protected by a covered structure/stationary vehicle. For a necessary life-safety overflight, use no lower altitude or closer proximity than required to safeguard human life. [SP F.2-3]

PREFLIGHT AIRSPACE AND COORDINATION

Airspace check. Confirm approved polygon/grid height, weather, obstacles, other NOTAM activity, military/restricted areas and TFRs. Deconflict overlapping UAS operations with the other proponent. The COA does not authorize flight within TFRs or Part 99.7 military UAS restricted areas. [SP B.5; ATC A.8, C.1-3]

NOTAM decision. ATC C.6 exempts qualifying VLOS flights within the stated weight, speed and altitude limits from NOTAM issuance. For emergency operations otherwise requiring a NOTAM, issue as soon as practical; omission for ground safety must be justifiable. [SP C.1-4; ATC C.6]

- ATC readiness. Monitor the assigned Class B ATC frequency; establish two-way communications if ATC requires. Keep a backup telephone and real-time contact available. When a NOTAM is filed, include the POC and primary/backup contacts. BOS ATCT: 617-455-3194. [ATC A.1, A.4-5; B.1, B.4]

- Lost-link preparation. Confirm programmed fail-safe/return-to-home behavior and altitudes before launch. The anticipated lost-link path must remain within PIC/VO visual line of sight, the incident perimeter and the applicable COA altitude limit. [SP B.11; ATC D.1]

IN-FLIGHT OPERATING PROCEDURES

- Continuous control. Maintain the ability to visually acquire the aircraft and preserve separation from all traffic. Check aircraft position, UASFM altitude, battery/endurance and control-link status continuously. ATC may delay, limit, prohibit or terminate operations; comply promptly. [SP B.1-3; ATC A.5, C.4]

- Nearby airports. Within 5 NM of a closed-tower/nontowered airport, helipad or water landing area, monitor the relevant UNICOM/CTAF; within 0.5 NM of a noncontrolled airport, heliport or water landing area, notify airport management. Additional Class E surface coordination may be required. [ATC A.6-7; B.2]

- Operating restrictions. Do not operate from a moving vehicle or watercraft except over a sparsely populated area with PIC/VO co-located. Maintain an approved flight area and do not interfere with airport traffic patterns. [SP B.2, B.10; ATC D.1(d)]

LOST LINK, LOSS OF SIGHT, AND FLY-AWAY

- Lost command link. After at least 3 seconds of data-link loss, the aircraft must enter its programmed fail-safe and climb no higher than the approved COA ceiling while attempting reconnection. If still disconnected at 30 seconds, warn affected ground personnel, direct any assigned VO to note bearing/distance, and have the aircraft return home and land. Keep it within the incident perimeter; notify the appropriate ATC facility within 15 minutes after flight ends. [ATC D.1]

- Loss of visual contact. A VO who loses sight must immediately notify the PIC. If the aircraft is not promptly reacquired, terminate flight and notify the appropriate ATC facility within 15 minutes after flight ends. Apply the same termination principle if the PIC cannot maintain required VLOS. [SP B.1; ATC D.2]

- PIC-VO communications. If assigned PIC-VO communication fails, execute the COA lost-link procedure. Resume only if communication is promptly reestablished; otherwise terminate the flight and notify ATC within 15 minutes after flight ends. [ATC D.3]

- Fly-away/loss of control. Notify the responsible ATC facility immediately. Report altitude, last known location, direction/heading, remaining battery time, PIC intentions and flight termination or emergency status. [ATC D.4]

POST-FLIGHT AND REQUIRED REPORTING

- Records and CAPS. Document all COA-related UAS operations, irrespective of airspace. Submit the number of flights each month through the FAA COA Application Processing System (CAPS). Document abnormalities, flight restrictions and required notifications. [SP D.1-2]

- Closeout. Cancel any D-NOTAM that was issued. Record flight completion, deviations and necessary follow-up. Preserve documents for inspection as required by the COA. [SP C.3; A.2, A.4]

CONTROLLING DOCUMENTS AND IMPLEMENTATION

FAA COA 2026-ESA-19370-COA, Special Provisions A-G, ATC Special Provisions and Attachment 1 remain the controlling authority. Consult current UASFM, applicable aircraft manual and MFD checklists. For emergency/life-threatening operations outside approved

boundaries or altitudes, request Special Government Interest (SGI) approval via FAA SOSC at 202-267-8276 before exceeding limits. [SP B.13; ATC A.3; ATC E]

BEYOND VISUAL LINE OF SIGHT (BVLOS) OPERATIONS

PURPOSE AND AUTHORITY

This SOP governs Medford Fire Department (MFD) small UAS flights under FAA Certificate of Waiver (COW) 91.113-2026-01101, including BVLOS flights without a visual observer (VO). Operations must qualify as Public Aircraft Operations and comply with the waiver, its application, and any associated COA or airspace authorization. Where requirements conflict, follow the most restrictive unless the FAA authorizes otherwise. The COW does not authorize prohibited or restricted airspace. [COW pp. 1–3; SP 1–9]

MFD is responsible to the FAA for safe operations; the RPIC is responsible for flight safety. Incident objectives do not supersede aviation limitations. [SP 1, 3, 22–24]

PERSONNEL, TRAINING, AND DOCUMENTS

Personnel. Use only RPICs trained and certified by MFD. Ensure RPICs, control manipulators, and VOs (if assigned) are familiar with the waiver and Part 91. Document training, including night-vision physiology and visual-illusion training for RPICs/VOs. *[SP 1, 13]*

Records. Keep current pilot-name and aircraft-registration lists, and an accessible copy of this COW at the ground control station. An RPIC or VO may not serve more than one UA at a time unless authorized. *[SP 4–6, 16]*

AUTHORIZED FLIGHT ENVELOPE

BVLOS altitude. Class G: at/below 200 ft AGL, OR up to 100 ft above an obstruction within a 100-ft radius of the UA (maximum 400 ft AGL). Class B/C/D/E surface areas: at/below 200 ft AGL and within the applicable UAS Facility Map (UASFM) height, whichever is lower. *[SP 11]*

VLOS altitude. The RPIC and person manipulating controls must see the UA unaided except corrective lenses for the entire flight; maximum 400 ft AGL or UASFM altitude, whichever is lower. *[SP 10]*

Airspace. Before every launch, check current UASFM, airspace restrictions and TFRs. Obtain CAPS/CADZ airspace authorization for flights identified in SP 12 (e.g., above a grid height or in controlled airspace without applicable grids). Flights below applicable grid limits do not require two-way ATC radio contact or a separate Class B clearance under SP 27–28. *[SP 12, 25, 27–28]*

Aircraft and weather. Total takeoff weight, including attachments, must be under 55 lb; speed 87 kt (100 mph) maximum. Visibility must be at least 1 statute mile at launch/landing point, and aircraft must remain clear of clouds. Anti-collision lighting must operate day and night and provide 3-mile conspicuity for twilight/night flight. *[SP 14–15, 18–20]*

When operating under both the BVLOS waiver and an associated COA, the RPIC shall comply with all applicable provisions of each authorization. Where weather or operational requirements differ, the more restrictive limitation shall govern unless otherwise authorized by the FAA.

PRE-FLIGHT PROCEDURE

Brief and assess. Confirm authorized mission/airspace, altitude limits, weather, launch/recovery area and obstacles. Complete an assessment of ground/air hazards within 1 statute mile (low-level aviation/helipads, pedestrian/vehicle exposure, highest obstacles, command-and-control [C2] coverage). Brief any VO/control manipulator. In critical or urgent emergency management operations, completion of this checklist is not required but should be considered. *[SP 25, 30]*

Aircraft detection. For BVLOS, use a detection system to identify ADS-B Out aircraft on both 978 MHz and 1090 MHz; the source must be Operator-owned/operated/controlled, carried onboard, or an FAA-approved UTM third-party service. *[SP 35–36]*

Lost-link setup. Before launch, program automatic return-to-home (RTH) upon signal loss with obstruction clearance. RTH must remain at/below 200 ft AGL or within 50 ft of an

obstruction in Class G, and at/below applicable UASFM height in controlled airspace. Do not launch if compliant RTH cannot be assured. *[SP 29]*

IN-FLIGHT SAFETY

Separation. Maintain awareness of all aircraft, safe operating distance, and yield to manned aircraft. Coordinate/deconflict with other emergency aircraft. Do not interfere with traffic patterns at airports, heliports or seaplane bases. ADS-B awareness does not relieve these duties. *[SP 22–24, 35–36]*

People and vehicles. Overflight is permitted only under an applicable SP 21 condition. The life-safety exception permits only the altitude, proximity and duration necessary to safeguard human life; it is not a blanket authorization for routine overflight. *[SP 7, 21]*

Operating position. Do not control from a moving vehicle or watercraft unless flying over a sparsely populated area with RPIC/VO co-located, or separately authorized. Remain within authorized area and altitude throughout flight. *[SP 11–12, 17]*

ABNORMAL AND EMERGENCY PROCEDURES

Safety degradation. If aircraft conflict, lost detection capability, degraded C2, visibility below minimums or other hazard compromises safe flight, discontinue the mission, give way as needed and recover/land when safe. *[SP 19–24, 29, 35–36]*

Lost link. Follow the preprogrammed RTH and MFD lost-link procedures. Monitor the situation and prevent unauthorized airspace entry or other hazards where feasible. *[SP 29]*

Fly-away threat. If a fly-away/emergency could endanger aviation or an airport, contact the responsible ATC facility immediately with (1) nature of the emergency, (2) last-known UA position/altitude/direction and (3) maximum remaining flight time. *[SP 31]*

Beyond approved limits. For urgent/life-threatening missions requiring operations beyond the COW or approved area/altitudes, request FAA Special Government Interest (SGI) approval before exceeding those limits unless otherwise authorized; SOSC: 202-267-8276. *[SP 32]*

POST-FLIGHT AND MANDATORY REPORTING

Flight logs. Preserve all flight times for the waiver's duration, including monthly total flight time; record anomalies and aviation coordination. *[SP 34]*

NTSB. Report accidents, incidents, or occurrences as applicable under 49 CFR Part 830 by the most expeditious means available. *[SP 37]*

FAA. Email 9-AVS-AFS-750-91.113Waivers@faa.gov for (1) any UA approach within 500 ft vertically and/or horizontally of an aircraft with a person onboard (include straight-line, horizontal and vertical closest distances) and (2) any UA loss-of-control event (date and description). *[SP 38]*

CONTROLLING DOCUMENTS AND IMPLEMENTATION

FAA COW 91.113-2026-01101 and Special Provisions 1–38 remain the controlling authority. Also consult the waiver application, applicable MFD Part 91 COA, airspace approvals, aircraft manual, and Department preflight/lost-link procedures.

NIGHT FLIGHT OPERATIONS

- UAS will only be used at night if the pilot has the proper authorization/waiver in place.
- UAS Team members should obtain the minimum altitude necessary to avoid obstructions in the operating area prior to nightfall if possible.
- Due to field of view or distortion issues, night vision goggles may not be used as the primary means for visual observation duties.

DECONFLICTION OF AIRCRAFT

- All UAS flights shall be grounded upon arrival of approved government manned aircraft entering the operational air space unless coordinated flight training has occurred with that agency.
- Deconfliction shall occur by the lead PIC of the aircraft.

- It is the responsibility of the UAS pilot and VO (if assigned) to confirm and maintain awareness of all manned aircraft activity during UAS operations.
- In the event a non-Department UAV is identified within the operational airspace, the RPIC shall notify the IC and immediately follow incursion protocols.

POST-FLIGHT

- After landing, a thorough post-flight inspection of the UAS must be completed by the designated RPIC, assisted by any crewmembers if assigned. A post-flight checklist shall be utilized for the inspection procedure.
- Any decontamination will be performed in strict accordance with the specifications and guidelines of the UAS manufacturer.
- UAS Deployment Report will be submitted to the UAS Program Coordinator and Shift Commander. (The post-flight checklist can be located in the Forms Appendix A)

MANNED AND UNMANNED JOINT OPERATIONS

MFD UAS will not fly in the same airspace as other public safety or government agencies unless inter-agency deconfliction training has occurred and both agencies have signed off as being proficient. For example, deconfliction training with “MedFlight” does not clear MFD UAS to fly in the same airspace as Stat Police Air Operations Unit. Separate deconfliction training is required.

POLICY

- Command will maintain resource accountability at all incidents.
- Incident Commanders are responsible for the notification to incident aircraft, tracking and documenting of responding unit response (to include UAS resources), and utilizing tactical worksheets and incident action plans.
- Manned aircraft take priority and have precedence over airspace.

- Both manned and unmanned resources shall establish and maintain communications.
- All UAS resources shall establish and maintain separation assurance standards through the demarcation of altitude, horizontal distance, and/or geographical areas of operation.
- Dispatch will announce UAS operations during incident response. UAS operations shall be communicated to manned aircraft at the time of the request.

COMMUNICATIONS

During training and emergency incident response, effective communications shall be maintained between the RPIC and Visual Observer when a VO is assigned. When the RPIC and VO are not within direct verbal communication, Department radio communications shall be established and maintained. UAS operational communications will normally utilize the appropriate available line-of-sight Fire Ground channel (North Fire Ground Alpha, Central Fire Ground Alpha, or other assigned channel). If required communication between the RPIC and VO is lost, communication shall be promptly re-established; if it cannot be restored, the operation shall be modified or terminated as required by the applicable COA.

The RPIC shall monitor and maintain communications with Air Traffic Control, UNICOM/CTAF, or other aviation facilities when required by the applicable FAA authorization. The RPIC shall have a telephone available as a backup method of communication with ATC. If required communications are lost or unavailable, the RPIC shall attempt to restore communication using the primary or available backup method and shall modify, recover, or terminate the operation when continued flight would no longer comply with the applicable COA or ATC instructions.

Upon seeing or hearing a manned aircraft operating in the immediate vicinity that may present a conflict, the RPIC shall immediately give way and take appropriate action, including descent, repositioning, or landing as necessary. The UAS shall not resume the affected operation until the potential conflict has passed and the RPIC determines that continued flight can be conducted safely.

SEPARATION ASSURANCE STANDARDS

All UAS operations shall remain within the altitude limitations established by the applicable FAA Certificate of Authorization, waiver, or other approved operating authority. For Class B airspace, the RPIC shall verify the current UAS Facility Map altitude before flight. BVLOS operations shall comply with the additional altitude restrictions specified in FAA Waiver 91.113-2026-01101. The general 400-foot AGL limitation shall not be interpreted as authorization to exceed any more restrictive approved altitude.

UAS shall give right-of-way to manned aircraft and return to its landing area until flight becomes safe again.

If multiple UAS are operating in a single operational area, the RPICs of each aircraft must communicate and at a minimum, maintain 20 feet separation in all directions. 20 feet separation alone does not guarantee safe separation. An approved deconfliction plan based on aircraft speed, positioning accuracy, mission area, and contingencies is required.

LOST LINK/GNSS PROCEDURES

Lost link is an interruption or loss of the Command and Control (C2) link between the control station and the unmanned aircraft. This prevents control of the aircraft and results in the aircraft performing its pre-set lost-link procedure.

While operating in controlled airspace, in the event of a lost link, the RPIC, or another designated crew member when available, shall notify the appropriate ATC facility as required by the applicable COA.

The following lost-link and GNSS/GPS procedures shall apply:

- Prior to flight, the RPIC shall verify that the aircraft **Signal Lost behavior is configured to Return to Home (RTH)** and that the home point and RTH altitude are appropriate for the operating area and comply with applicable airspace and altitude limitations.

- Upon loss of the C2 link, the aircraft will attempt to re-establish the connection. **If the C2 link is not re-established within 3 seconds, the aircraft will execute the preset Signal Lost behavior.** When configured for RTH, the aircraft will return to the designated home point/LZ and land.
- If the aircraft loses GNSS/GPS positioning while C2 control remains available, the RPIC shall maintain control of the aircraft and land as soon as practical at a safe location within the authorized operating area.
- If GNSS/GPS positioning is unavailable and the aircraft cannot perform RTH, the RPIC shall follow the applicable aircraft warnings and available recovery procedures and shall prioritize containment of the aircraft within the authorized operating area.
- Any lost-link event requiring notification or reporting under the applicable COA shall be handled in accordance with those requirements.

EMERGENCY FLY-AWAY PROCEDURES

In the event of a fly-away or loss of control while operating in controlled airspace, the RPIC, or another designated Department member when available, shall immediately notify the appropriate ATC facility. For operations under COA No. 2026-ESA-19370-COA, Boston Logan International Airport Traffic Control Tower may be contacted at (617) 455-3194.

The notification shall include, as available:

- The nature of the emergency
- Aircraft altitude, last known location, and direction of flight
- Remaining battery/flight time
- RPIC intentions
- Termination or status of the emergency condition

LOST SIGHT

During a VLOS operation, if the RPIC loses visual contact with the aircraft, or if a Visual Observer when assigned loses sight of the aircraft, immediate action shall be taken to re-establish required visual contact. The RPIC shall maintain aircraft control and may stabilize or reposition the aircraft as necessary to support safe reacquisition.

If the aircraft is visually re-acquired, the mission may continue when the RPIC determines continued flight is safe. If visual contact is not promptly re-established, the RPIC shall initiate recovery or terminate the operation, including Return to Home when safe and appropriate.

Any applicable ATC notification or reporting requirement shall be completed in accordance with the applicable COA.

(See the Contingency Plan Checklist in the Forms Appendix B)

DOCUMENTATION

Each flight will be recorded in both the UAS Department's flight logbook and the pilot's personal logbook.

A "UAS Deployment Report" must be submitted at any time a UAS Team is deployed on a training mission or active incident. This report will be submitted to the UAS Program Coordinator and the Shift Commander.

A "UAS Deployment Report" will consist of the pre-flight, post-flight, and maintenance records that will be found in **Forms Appendix A**

MEDICAL FACTORS

The health of the flight crew is paramount, and any member of the UAS program must stand down if they feel they are not able to perform their duties.

A self-assessment of physical condition shall be made by all flight crew members during pre-flight activities.

No member shall act as an RPIC or a VO within eight hours after consumption of any alcoholic beverage.

DATA COLLECTION AND USE

The Medford Fire Department will only use UAS-collected flight information for an official and authorized purpose. Data will not be shared with vendors except as part of official Fire Department purposes.

UAS flight data, whether training or incident related, will be recorded in a flight log specific to each UAS owned by the Department.

In all cases, "real time" information will be captured **SOLELY** to transmit "live" footage to a Department IC or command post.

DATA RETENTION

It will be the Department's policy and practice to NOT record visual data of any incident or training exercise.

Unauthorized use, duplication, and/or distribution of UAS digital media files is prohibited. Personnel shall not make copies of any UAS digital media files for their personal use and are prohibited from using recording devices (such as personal camera, tablets or smartphone) or any secondary video camera to capture UAS systems media including the retention of video cached on the web.

REQUEST FOR DELETION OF ACCIDENTAL RECORDING

In the event of an accidental activation and/or recording, the recording employee will contact the UAS Program Coordinator and request that the UAS digital media file be deleted.

UAS SPECIFICATIONS

Global Positioning System – All MFD UAS will have a global positioning system,
Obstacle Avoidance – All MFD UAS will be equipped with obstacle avoidance.
Remote ID – All MFD UAS will have RID embedded or RID broadcast modules.
Software/Firmware Updates – MFD will ensure the software and/or firmware used to operate each UAS is kept up to date and maintained. The Program Coordinator will be responsible for overseeing this. The UAS Team will confirm that updates are current prior to each use. The UAS will not operate until the software update has been completed.
Aircraft Features – No MFD UAS may be modified or be used in a way that would be reasonable considered to distract drivers or other aircraft.
Airworthiness – The RPIC will be responsible for ensuring the UAS is flight-ready according to manufacturer recommendations and any related industry standards. A pre-flight checklist will be utilized prior to ALL UAS flights.
Strobe – All MFD UAS must have a strobe light that meets FAA night visibility regulations and an adequate flash rate that is visible for 3 statute miles. The strobe will remain on during all flight operations, day or night.

INVENTORY MANAGEMENT

The Program Coordinator will maintain the following UAS inventory records:

- The serial number, make, and model of each MFD UAS.
- The secured location where each MFD UAS is stored.
- A description of the technologies and capabilities associated with each UAS.
- Dates upon which new updates to the UAS or associated technology are required.
- Track UAS lifespan and replacement.

CYBER SECURITY

MFD personnel will follow cyber security best practices governing the use of UAS. This includes efforts to protect the UAS from cyber tampering or attack.

MFD UAS personnel will maintain an understanding of the latest threats and vulnerabilities and will ensure all manufacturer UAS cyber security protections (software, updates, patches, etc.) are current.

MAINTENANCE

The UAS Program Coordinator or their designee will oversee the maintenance of the Department's fleet.

The RPIC is responsible for any general maintenance or updates of their UAS before and after each flight.

Warranty work, repairs and service will be handled by the UAS manufacturer or a certified third-party vendor that has been approved by the UAS manufacturer.

STORAGE AND TRANSPORT

MFD UAS will be stored in a protective pelican case and housed in a temperature-controlled secure location.

The UAS will be stored in the pelican case during transport.

INCIDENT/ACCIDENT REPORTING

The RPIC will immediately report any loss or damage to any part of the UAS to the UAS Program Coordinator.

All UAS accidents, incidents, loss-of-control events, and reportable occurrences shall be documented and reported in accordance with the requirements of the FAA operating authority governing the flight. Part 91 Public Aircraft Operations shall comply with the applicable COA, Certificate of Waiver, and NTSB reporting requirements under 49 CFR Part 830. Operations conducted under Part 107 shall comply with the accident reporting

requirements of 14 CFR § 107.9. The RPIC shall notify the UAS Program Coordinator immediately of any incident requiring regulatory review or reporting.

Reference the COA and BVLOS waivers for explicit instruction on accident reporting and to which entities the reports should be sent to.

The RPIC will complete a Departmental “communication” to the Chief and the UAS Program Coordinator detailing the circumstances of the incident, accident or injury. The Chief and UAS Program Coordinator will review and make recommendations for future program adjustments to prevent a similar incident from ever happening again.

FORMS APPENDIX:

Appendix A: Flight Checklist

UAV Pre-Flight Checklist

Medford Fire Department
UAS Pre-Flight, Post-Flight & Maintenance Log
Autel EVO Max 4T XE

Date:_____

Incident/Location:_____

RPIC:_____

VO:_____

Aircraft ID: FA3ELPFERF

PRE-FLIGHT

Airframe & Propulsion

☐ Airframe damage check
☐ Propellers secure and undamaged
☐ Motors spin freely
☐ Landing gear secure
☐ Gimbal clamp removed

Power System

☐ Flight batteries >=95%

☐ Hot-swap batteries seated correctly
☐ Controller battery sufficient
☐ Spare batteries available

Systems & Sensors
☐ GNSS lock confirmed (GPS/GLONASS/Galileo)
☐ Visual navigation sensors operational (GNSS-denied capable)
☐ Compass/IMU status normal
☐ Obstacle avoidance (radar + vision) active
☐ Home point updated
☐ Anti-interference status normal
☐ RTH programmed to not exceed UASFM grid and avoid area obstacles

Payload (Fusion 4T)
☐ Visible/Zoom camera operational
☐ Thermal camera calibrated
☐ Laser rangefinder functional

Comms & Control

NOTES: If communication between RPIC and VO is not attainable through verbal means, ensure radios are used. North or Central Fireground will be acceptable LOS channels to keep Medford Fire and Medford Fireground Alpha free for fireground/incident operations.

☐ Controller link stable (SkyLink)
☐ Video feed verified
☐ Failsafe/RTH configured
☐ C2 link confirmed
☐ ADS-B detection system receiving 978/1090 MHz traffic information

Airspace / Weather

NOTES: Autel EVO Max 4T XE is not waterproof. Never fly in rain or fog. Do not fly if wind exceeds manufacturer recommendations. Ideal operating temperatures between -4F and 104F. Operating outside of these temperature ranges will affect battery performance and flight stability.

☐ Authorization / NOTAMs checked
☐ Weather within limits
☐ Wind within aircraft tolerance
☐ Visibility and ceiling compliant
☐ Confirm UASFM grid altitudes for operating area
☐ Applicable FAA operating authority identified
☐ Flight location within approved operating area
☐ VLOS/BVLOS crew requirements verified
☐ Night lighting and VO requirements verified, if applicable
☐ Current airspace/TFR review completed
☐ Lost-link RTH configuration verified for selected authority
☐ Required ATC coordination/NOTAM completed or exemption verified

Mission & Safety
☐ Flight plan established
☐ Obstacle hazards identified
☐ Emergency procedures reviewed
☐ Landing zones identified
☐ Crew brief complete
☐ ICS integration confirmed

Launch Authorization
☐ Final area clear
☐ Manned aircraft scan complete
☐ Verbal launch clearance

POST-FLIGHT

Shutdown & Inspection

☐ Aircraft powered down safely
☐ Battery removed and cooled
☐ Airframe inspected for damage
☐ Propellers rechecked
☐ Payload secured

Data & Documentation

☐ Mission notes recorded
☐ Any anomalies documented
☐ Flight logged (software/agency log)

MAINTENANCE LOG

Maintenance Tracking

☐ Battery cycle count updated Y/N
☐ Firmware updates required? Y/N
☐ Calibration required (IMU/Compass/Gimbal) Y/N
☐ Repairs needed Y/N
☐ Parts replaced Y/N

Notes:

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Pilot Signature: _____Date: _____

Supervisor Review: _____Date: _____

Appendix B: Contingency Plan Checklist

Event	Result	Procedure
Battery Depletes	UAS incapable of continuing flight operations.	UAS return to base (RTB) as soon as practical.
Ditch Procedures	UAS incapable of continuing flight operations.	Identify safe landing area; attempt a controlled landing; if able, land UAS in water (shallow preferred for ease of recovery) away from public
Hazardous Weather	UAS incapable of continuing flight operations.	UAS RTB as soon as practical.
Hostile Environment	Mission impacted by hazard (ex. Air traffic, public activity).	See and avoid; take evasive action as required with safety taking precedence; UAS RTB as soon as practical.
Loss of Communications	Mission impacted by lack of communications hazard.	Maintain VLOS; take evasive action as required with safety taking precedence, UAS RTB as soon as practical.
Loss of Control Signal	UAS not controllable.	Maintain VLOS; execute UAS RTH and land without harm to UAS or contacting surrounding objects.
Loss of Direct Visual	UAS could become a hazard if unable to regain visual control.	Regain direct visual of UAS; contact visual observer to determine status.
Loss of GPS Signal	Use extreme caution as the positional data for the UAS will not be accurate.	Assume manual control of the UAS; if GPS signal cannot be reacquired, determine whether safe UAS control can be maintained. If safe flight cannot be maintained, land as soon as practical.
Loss of Situational Awareness (SA)	UAS could become a hazard if unable to regain SA.	Maneuver to a safe altitude; reorient with use of sensors; RTB if required.
Privacy Impact	Possible public complaint.	RTB and complete an assessment.
UAS Failure	UAS incapable of continuing flight operations.	Maintain VLOS; UAS RTB as soon as practical.

Appendix C

Tower Notification Contact List

Airport and Air Traffic Control coordination shall be conducted in accordance with the requirements of the applicable FAA COA, waiver, or airspace authorization. Operations under COA 2026-ESA-19370-COA shall comply with the airport notification, ATC monitoring, and coordination requirements specified in the Air Traffic Control Special Provisions.

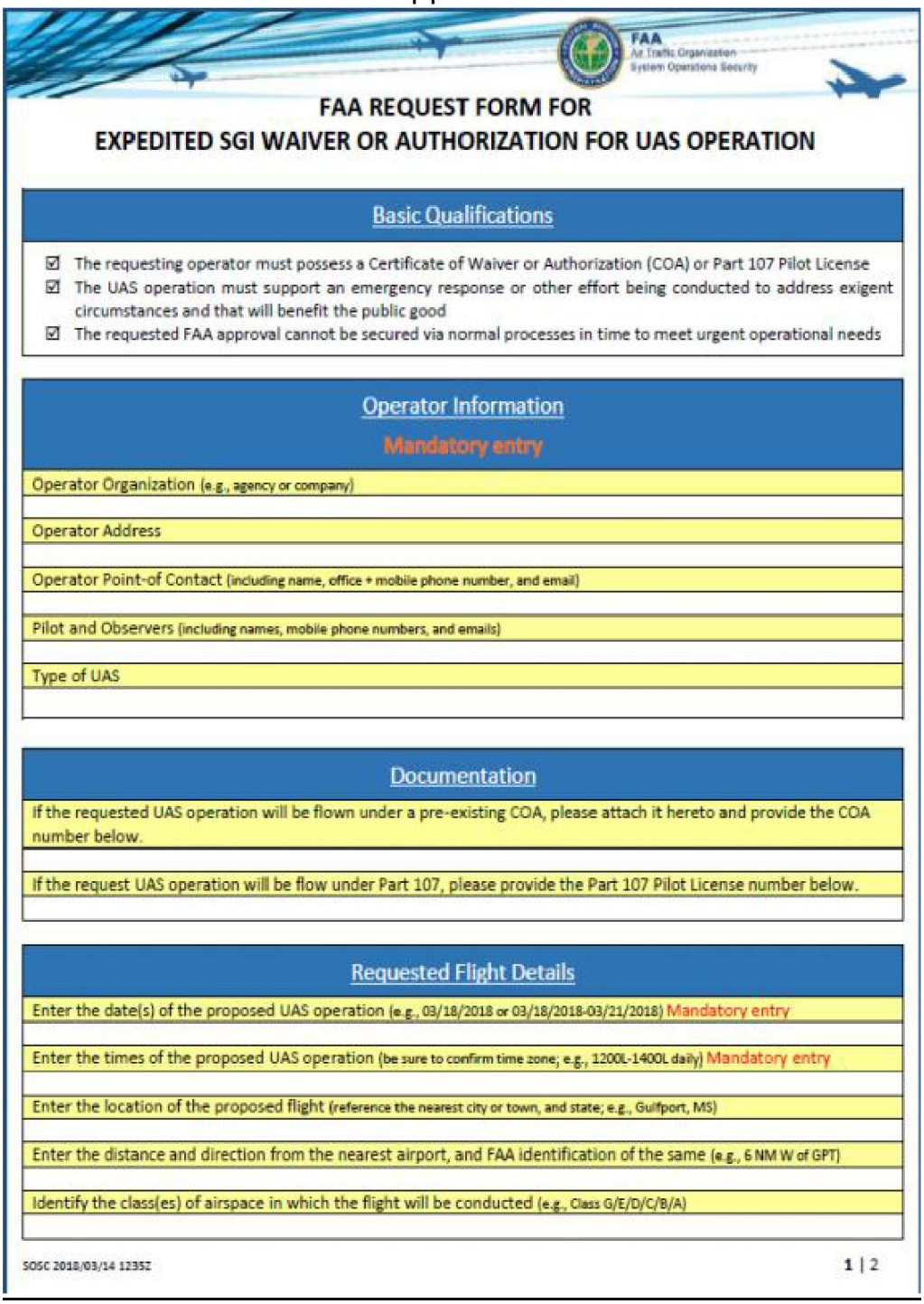
For operations that require a waiver through the Special Governmental Interest (SGI) process, requests should be submitted to the FAA by filling out the Emergency Operations Request Form and send to the FAA's System Operations Support Center at 9-ator-hq-sosc@faa.gov, by contacting (202) 267-8276, or by submitting an online form at https://waivers.faa.gov/aap/te_pages.p.login

(See Appendix D for SGI Emergency Operations Request Form)

Boston Logan International Air Traffic Control Tower is to be contacted and made aware of any UAS mission/incident that requires an FAA SGI approval within Boston Logan International Class B Airspace, any mission/incident in close proximity to or that might affect Boston Logan International Airport Operations. This notification should be made as early as possible as well as once the UAS mission/incident has concluded.

Boston Logan Tower	(617) 455-3194
Hanscom Field Tower	(781) 372-5500

Appendix D



FAA REQUEST FORM FOR
EXPEDITED SGI WAIVER OR AUTHORIZATION FOR UAS OPERATION

Basic Qualifications

- ☑ The requesting operator must possess a Certificate of Waiver or Authorization (COA) or Part 107 Pilot License
- ☑ The UAS operation must support an emergency response or other effort being conducted to address exigent circumstances and that will benefit the public good
- ☑ The requested FAA approval cannot be secured via normal processes in time to meet urgent operational needs

Operator Information
Mandatory entry

Operator Organization (e.g., agency or company)
Operator Address
Operator Point-of-Contact (including name, office + mobile phone number, and email)
Pilot and Observers (including names, mobile phone numbers, and emails)
Type of UAS

Documentation

If the requested UAS operation will be flown under a pre-existing COA, please attach it hereto and provide the COA number below.
If the request UAS operation will be flow under Part 107, please provide the Part 107 Pilot License number below.

Requested Flight Details

Enter the date(s) of the proposed UAS operation (e.g., 03/18/2018 or 03/18/2018-03/21/2018) Mandatory entry
Enter the times of the proposed UAS operation (be sure to confirm time zone; e.g., 1200L-1400L daily) Mandatory entry
Enter the location of the proposed flight (reference the nearest city or town, and state; e.g., Gulfport, MS)
Enter the distance and direction from the nearest airport, and FAA identification of the same (e.g., 6 NM W of GPT)
Identify the class(es) of airspace in which the flight will be conducted (e.g., Class G/E/D/C/B/A)

SOSC 2018/03/14 1235Z

1 | 2

Requested altitude of UAS flight: Mandatory entry	
Enter GIS details defining location of proposed flight (only one area type description needed) Mandatory entry	
For those flights remaining within a general contiguous area, which can be described as a circular polygon, provide the latitude and longitude, expressed as degrees/minutes/seconds, of the center of that area and the radius of that same area (e.g., XX:XX:XXN / XXX:XX:XXW - .25NM radius)	
For those flights remaining within a general contiguous area, which cannot be easily described as a circular polygon, provide the latitude and longitude, expressed as degrees/minutes/seconds, of the vertices of the general area starting with the most northerly point and then progressing clockwise (e.g., (XX:XX:XXN / XXX:XX:XXW; XX:XX:XXN / XXX:XX:XXW; XX:XX:XXN / XXX:XX:XXW)	
For those flights following an extended route, provide the latitude and longitude, expressed as degrees/minutes/seconds, of the key waypoints of the route, and, as appropriate provide the width of the route (e.g., XX:XX:XXN / XXX:XX:XXW; XX:XX:XXN / XXX:XX:XXW ; XX:XX:XXN / XXX:XX:XXW ; XX:XX:XXN / XXX:XX:XXW - .25NM wide)	

Nature and Description of Event		
Enter the type of urgent UAS operation to be flown		Description of event
☐	Firefighting Law Enforcement Search and Rescue	
☐	Local / National / Natural Disaster	
☐	Other (specify below)	

Additional Pilot Qualifications	
Enter additional pilot qualifications	
☐	Sport/Recreational/Private pilot certificate
☐	Commercial/Airline pilot certificate
☐	Flight instructor certificate

Contacting the SOSC
The SOSC office and email are staffed/monitored 0600-2400 Eastern Time. For all emergencies, please follow up any email with a phone call to 202-267-8276, which is answered 24/7.

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Appendix E

D/NOTAM FILING PROCEDURES

Electronic:

1. Go to: 1-800wxbrief.com
2. Username:
   Password:
3. Click **UAS** along the top ribbon
4. Under **UAS Management**, click **Planning**
5. Enter required information
6. If including GPS coordinates, enter the coordinates in degree, minute, and seconds using the format: DDMMSSNDDDMMSSE

Telephonic:

1. Obtain GPS coordinates prior to calling.
2. Call 1-877-487-6867
3. Enter 22
4. Enter 1
5. Speak to a "Flight Data Specialist"
6. Provide required information:
   - Name and contact information of the pilot filing the D/NOTAM request
   - Location, altitude and operating area
   - Time and nature of the activity
   - Minimum radius required to conduct the operation
7. Call back when UAS operations are completed or will not be conducted.

Requests to Operate Outside the Approved Operating Area (Mutual Aid)

1. Obtain GPS coordinates prior to calling.
2. Call System Operations Support Center (SOSC) at 202-267-8276.
3. Provide the following information:
    a. Name and contact number
    b. Confirm you are operating under an active COA. (COA number is **2026-ESA-19370-COA**, expires October 15, 2028)
    c. Mission title (structure fire, search, etc.)
    d. Date, time, and duration of the flight(s)
    e. Mission area boundaries
    f. Aircraft make, model, and registration (Autel Evo Max 4T XE, Registration # FA3ELPFERF expires June 12, 2029)
    g. Flight altitude requested
    h. Nature of the operation – firefighting, wildfire suppression, search and rescue, damage assessment, disaster recovery)
    i. Indicate why standard COA/107 processes cannot be used (time-sensitive, airspace restrictions, emergency situation)
4. Call SOSC when mission is completed to cancel the request.