

**Annual Review of the
JBLE-Eustis Integrated Pest Management Plan
20 May 2022 – 19 May 2023**

I. Installation Name: Joint Base Langley-Eustis (Eustis), Fort Eustis, VA.

II. Currency of Installation Pest Management Plan (IPMP).

1.	Does the installation have an approved Installation Pest Management Plan (IPMP)?	Yes. See item VII.1. below.
2.	Date the IPMP received final signature.	5/19/2020. See VII.1.
3.	Are you planning to rewrite/revise the IPMP?	No (but note IPMP updates in Annex A of this review).

III. Installation Pest Management Coordinator (IPMC).

1.	Has an Installation Pest Management Coordinator been assigned in writing? Please forward copy of appointment letter to AFSPC Command Entomologist along with this form.	YES. See VII.2.
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IV. Plan Maintenance.

Please list any minor changes (i.e., personnel changes, certifications, standard operating procedures, etc.) to the plan for the new Fiscal Year. Major plan revisions require re-staffing and re-submittal of the IPMP.

Approved/functional (see comments VII.1. below). Some minor updates have been noted in Annex A.

V. On-Site Assistance.

Please indicate if you would like a Staff Assistance Visit (SAV) this year and briefly describe the reason for the visit.

A Staff Assistance Visit was conducted 12 July 2022.
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VI. Aerial Applications.

1.	Are there any projects requiring the aerial applications of pesticides for the upcoming FY?	YES. See item VII.3. below.
2.	Does the installation have an approved aerial spray Statement of Need for the project(s) from the AFSPC Pest Management Consultant?	NO. See item VII.3. below.
3.	Does the installation have the appropriate Environmental Assessment(s) (EA) or Environmental Impact Statement(s) (EIS)?	NO. See item VII.3. below.

VII. Additional Comments.

1. Current IPMP status. The existing version of the JBLE-E IPMP was signed 19 May 2020 and therefore expires 18 May 2025. A new IPMP must be in effect by this date. IPMPs must be reviewed annually and revised accordingly. The first review was completed in 2021 with the second review completed in 2022. This review represents the third IPMP annual review since the plan was approved. Several updates were identified, and the specific revised wording is noted in Annex A below. The IPMP (and annual reviews) remains available for access by the installation community by being posted on the JBLE website (<https://www.jble.af.mil/Units/Army/Eustis-Environmental/>).

2. Installation Pest Management Coordinator status. DoD installations are required to appoint a staff member to serve as the Installation Pest Management Coordinator (IPMC). IPMCs oversee all aspects of integrated pest management programs. Mr. Timothy Christensen (733 CES/CEIE) was originally assigned as the IPMC in 2012 by the 733 MSG/CC and remained as such through this annual review period. An updated appointment memorandum was completed in May 2022. Mr. Christensen continued this role through this review period and remains in this role.

3. Integrated Pest Management (IPM) Program Review. AFCEC.COSC conducted an onsite review the JBLE-Eustis IPM program on 12 July 2022. The program was deemed in accordance with DoD/AF policies and no major discrepancies were identified.

4. Aerial pesticide applications. No aerial treatments for mosquitoes have been conducted for several years primarily because adult mosquito counts have not exceeded thresholds that would otherwise generate the need. Additionally, no mosquito-borne disease risks have been identified by regional or local public health authorities. Nonetheless, applications of pesticides via aerial platforms remain important tools in pest management when appropriate and when applicable documentation requirements are completed. Some changes at the installation have occurred requiring new Aerial Application of Pesticides Statements of Need (AAPSON) if aerial applications of pesticides against adult or larval mosquitoes were to be considered. This is due to the documented occurrence of the federally threatened Northern long-eared bat (*Myotis septentrionalis*) on JBLE-E in 2016, and the removal of the Indiana bat (*Myotis sodalis*) from consideration on the installation in 2021. However, the Northern long-eared bat status was upgraded to endangered status in late November 2022. Additionally, the black rail (*Laterallus jamaicensis*) became listed as endangered in October 2020 and occurs within the geographical area surrounding the installation (though to date, the black rail has not been observed on JBLE-Eustis). An Environmental Assessment (EA) is needed to meet these changes. The 633d CES contracted the preparation of an EA to cover both installations. Work began on/about July 2021 and has not yet approved by ACC as of the date of this review. Consequently, JBLE-Eustis was not covered under an EA for aerial treatments for mosquitoes during the review period, and this remains uncertain through the remainder of 2023. As a result, the IPMP is revised to omit aerial application of pesticides against mosquitoes as not an available resource until the EA is

completed. Appendix D and M-2 (paragraph 4.B.(2), page M-15) of the IPMP remain as revised accordingly (see Annex A). This EA also considers aerial applications using herbicides against the invasive grass known as common reed (*Phragmites australis*). No aerial applications against common reed occurred during the review periods. Once the EA is complete and a FONPA/FONSI approved, new/revise AAPSONs for common reed and mosquitoes is needed. The IPMC will coordinate preparation of the AAPSONs with AFCEC/COSC.

5. Red Imported Fire Ants (RIFA) (*Solenopsis invicta*) issues. This species is an invasive ant capable of inflicting painful stings and kills native terrestrial organisms. Several colonies were found during this review period at in soldier billets area of Building 698 (July 2022), Building (facility) 1055 aircraft loading mock-ups in Training Area 9 (August 2022), General Smalls Inn (November 2022), Aviation Complex construction site (November 2022), Building 2408 (airfield operations building) and the new aircraft fuel point at Condon Road and Mulberry Island Road (both on 3 May 2023) and Building 2404 (4 May 2023). Colonies had been observed previously on 17 December 2020 in the Slingload Training Area and Landing Zone (STALZ) area and at the Shoppette (Building 704) in 2013. More colonies are anticipated across the installation. 733 CES staff is reminded to ensure contractors comply with Environmental Management Procedure (EMP) 4.4.6.16 (CONTRACTING JBLE-EUSTIS ENVIRONMENTAL SPECIAL CONDITIONS AND AFFIRMATIVE ROCUREMENT) to prevent fire ants from being brought onto the installation. Colonies discovered on JBLE-Eustis were likely brought here in soil used for the Shoppette and Aviation Complex construction sites and have since permeated throughout the installation.

6. DOD/VDACS certifications. Tim Christensen (IPMC/CEIE) renewed his DoD pesticide applicator certification for categories 2 (Forest), 3 (Ornamental & Turf), 5 (Aquatics), 6 (Right of Way), 7 (Industrial, Institutional, Structure & Health) and 8 (Public Health) [AF-252-09-1122]. These certifications remain valid until 30 November 2025. He recertified Category 11 (Aerial Application) in May 2021. This certification remains valid through May 2024. Adam Priestley (CEIE/habitat program manager) completed the onsite initial DoD Pest Management Certification course in August 2022 and obtained certification for categories 2 (Forest), 3 (Ornamental and Turf), 5 (Aquatics), 6 (Right of Way) and 7 (Industrial, Institutional, Structure & Health) and 8 (Public Health) [A-134-22] which expires 31 August 2025. The golf course maintenance superintendent holds VDACS certification for 3B through June 2024. BOS contractors hold certifications in categories 3A, 3B, 5A (Aquatics), 6, 7A (General Pest), 7B (Wood Destroying Pests), and 8 (Public Health) through 30 June 2024.

7. FY 2022 Measures of Merit (MOM). The FY22 MOM was submitted to AFCEC in advance of the deadline.

8. Tick surveillance. Virtually no tick surveillance occurred during the review period due to lack of resources and indirect effects of the pandemic. MAHC DPH and the IPMC are considering creating a new surveillance program by using an Air Force lab or reworking testing by US Army Public Health Command.

9. Spider survey. The IPMC initiated a formal spider survey program beginning in CY 2020 and continued into CY 2023. Seven spider taxa not previously documented on the installation were noted during this review period that include *Pelegrina galathea* (Salticidae), *Ummidia audouini* (Halonoproctidae), *Drassyllus depressus* (Gnaphosidae), *Neoscona crucifera* (Araneidae), *Schizocosa* (Lysocidae), *Pholcus phalangioides* (Pholcidae), and *Trichonephila clavipes* (Araneidae). All taxa are harmless native taxa; however, *Pholcus phalangioides* is a synanthropic cosmopolitan species. Base Operations Support (BOS) contract pest control staff continue to provide sticky traps for examination by the IPMC to record the taxonomy and numbers. This task in conjunction with other IPMC arthropod inventory work that (a) supports documentation that brown recluse spiders (*Loxosceles reclusa*) are not evident on the installation despite frequent contradictions by installation community members and (b) contributes to the arthropod species inventory. As expected, no brown recluse spiders were documented on the installation during this review period. Virginia, in general is outside this species' geographical distribution but many unqualified persons continue to suggest their presence. The only documented medically important spider species occurring on the installation is the Southern Black Widow (*Latrodectus mactans*).

10. Pest Management Quality Assurance Evaluators (PMQAE). PMQAEs must be assigned for contracts that involve/include pest control. Personnel turnover and the unavailability of the AF's PMQAE online training prevented assigning PMQAE duties to CES staff during the previous review period. A new online course became available in early CY 2022 and two Operations Flight staff members have completed the training during this review period. A new individual for the railroad maintenance contracts has been assigned and needs to complete the training. Currently trained PMQAEs exist for the BOS and the grounds maintenance contracts. Additionally, CEIE natural resources/IPM staff have completed PMQAE training to oversee invasive vegetation/habitat management contract work assist Operations FL as feasibly possible. The IPMC conducted an orientation class for representative PMQAEs from Operations FL on 1 May 2023. This orientation included a discussion on PMQAE responsibilities, what to inspect, and the new electronic DD Form 1532-1.

11. IPM policy/Integrated Vector Management (IVM)/biting arthropod-related education/awareness for the installation community. CEIE staff utilized several forums to educate the installation community during the annual review period regarding nuisance biting and disease vectoring arthropods. Installation IPM policy and tick awareness topics are presented at the Activity Environmental Management (AEM) training classes. IPM and disease vectoring arthropods topics were presented at Fort Eustis MAHC field sanitation courses. IPM policy and tick awareness at Fort Eustis was presented at Newcomers Orientations. Additionally, CEIE staff presented related information along with information displays for the 1-210 Aviation Regiment Safety Stand-down event on 26 May 2022 and 25 May 2023.

12. JBLE-E Arthropod Inventory. The IPMC publishes an annual invertebrate/arthropod inventory with the original document completed in December 2018 (Christensen. Insects, Other Arthropods & Other Invertebrates Observed on Fort Eustis: Understanding the Significance of Invertebrate Taxa on Military Missions, 27 Dec 2018). This document was incorporated into the revised JBLE-E Integrated Natural Resources Management Plan (signed/approved by the Installation Commander on 5 June 2019) and the IPMP (signed/approved by the Installation Commander on 19 May 2020). This inventory remains a living document and is updated periodically with the first update completed in 2020 and the second update completed in December 2021. A third update was completed in January 2023. This inventory contributes to natural resources/habitat management including forest management as well as human and wildlife health on the installation.

13. Unauthorized pest control activities. All pest control occurring on the installation must be performed in accordance with the IPMP including approval of all pest control work by the IPMC. This includes having only authorized applicators performing pest control on JBLE-Eustis. The following authorized pest control/pesticide applicators were Alutiiq (BOS contract), Byrd Enterprises (grounds maintenance contract), two CEIE natural resources staff members, City of Newport News (exterior weed control at the Stanford Elementary School), Resource Management Associates (habitat and invasive vegetation contractor for CEIE), Pines Golf Course maintenance superintendent, and contractors performing termite control at the Aviation Battalion construction site (Metropolitan Services). A new subcontractor for vegetation control of railroad right of way was assigned during this period (ASPLUNDH Tree Expert LLC).

A. The 1st Advantage Federal Credit Union requested assistance from the IPMC with contracting a pest control applicator in October 2022. However, not all requirements were completed, and the contractor (Rentokil North America Inc) did perform applications without prior authorization. This situation is being worked between the IPMC and 1st Advantage Federal Credit Union.

B. The following potential issues arise when unauthorized pest control occurs:

- Unknown contamination of real property.
- Damage to environmental media or natural resources.
- Health risks to installation community members.
- Discharge of highly toxic or EPA-cancelled pesticides.
- Unnecessary use of pesticides.
- Incomplete Measures of Merit or other DoD/AF pest management reports.
- Registered Technicians applying pesticides on the installation.
- Applicators not certified in the appropriate category.
- Conflicts with existing pest control contracts.
- Excess pesticides used by different applicators in the same area.
- Applicator not holding a current Virginia Pesticide Business License.

14. Approval of pesticide use in Virginia. The VDACS website, Kelly Solutions (<http://www.kellysolutions.com/va/pesticideindex.htm>), was used to determine whether a given pesticide is authorized for use in Virginia. The system had stopped working in 2022 and remained as such until recently. However, it appears that the system is still under revision as several pesticides that had been in the previous database are missing.

15. Integrated Vector Management challenges. The JBLE-Eustis IPMP specifies testing of applicable mosquito species for West Nile Virus (WNV), Eastern Equine Encephalitis (EEE) and Saint Louis Encephalitis pathogens as these pathogens are representative of this geographical area as agreed between McDonald Health Center (MAHC) Department of Public Health (DPH) and 733 CES. DPH is responsible for arthropod disease vector surveillance and had sent mosquito specimens to US Army Public Health Command (USAPHC), Fort Meade, MD; however, USAPHC indicated it would do testing on *Aedes* mosquitoes which are not vectors of the pathogens of concern at JBLE-Eustis. The IPMC discussed this issue with DPC and will explore the possibilities of testing at an Air Force laboratory. Additionally, the IPMC intends to explore AF laboratory testing for tick-borne pathogens including Heartland Virus, Bourbon Virus, Deer Tick Virus, and *Babesia microti*.

16. Base Operations Support (BOS) contract. The BOS contract includes pest control services and represents the primary pest control organization for JBLE-Eustis. In the October-December time frame, the CEIE IPMC worked with the Operations FL staff to update/revise pest control components of the contract Performance Work Statement.

17. Enterprise Environmental, Safety, and Occupational Health Management Information System (EESOH-MIS). A pesticide management module was incorporated into EESOH-MIS effective August 2021 replacing the Integrated Pest Management Information System (IPMIS). Several issues were identified while attempting to implement this new system. Examining the module, the IPMC determined that certain challenges existed. Three pesticide applicators (the BOS contractor, CEIE natural resources staff, and the Pines golf course) needed to enter their pesticide inventories and obtain approvals from CEIE, Safety and Industrial Hygiene. Once accomplished purchase requests needed to be entered by these entities. This became burdensome and challenges arose from several pesticide listings for the same EPA registration number. There were several applicators who could not get EESOH-MIS access (the grounds maintenance contractor, City of Newport News applicators at Stanford Elementary School, natural resources habitat contractor, termite control applicators for new construction, and railroad vegetation control contractor). The IPMC had to create accounts for these entities and manage the contractors acquisitions. To compensate for these challenges, the IPMC designed a comprehensive yet simplified Excel spreadsheet by which all applicators would submit monthly reports. The IPMC could then enter usage data and be able to generate annual MoM reports if the challenges with EESOH-MIS prevented accurate generation of MoM reports. In December 2022, the EESOH-MIS system was discontinued. A new electronic version of the DD Form 1532-1, Pest Management Maintenance Record, was directed by AFCEC to be implemented as the means to record pest management functions. Implementation began in January 2023.

However, the original form provided contained macros that suggested security issues and the form could not be sent by email. Additionally, the form contained drop-down lists for pesticide trade names and EPA Registration numbers but nearly all Fort Eustis-approved pesticides were not available in this drop-down list. This condition also precluded typing information in these fields. As a result, the IPMC created a new form that contained all applicable data fields. Implementation did effectively begin until May 2023 as a result.

18. Feral/stray domestic animal issues. Feral/stray cats on the installation continued to be an issue during this review period. A Memorandum of Agreement (MOA) with the City of Newport News was generated and officially staffed; the current draft MOA places responsibility for capturing stray animals on the 733 CES BOS contracted pest shop.

19. Snake repellents. A privatized housing resident requested that the housing maintenance staff utilize commercial snake repellents around the residence. Residential Communities Initiative and the privatized housing management staffs sought advice from the IPMC who advised that such products should not be used due to ineffectiveness and risks of contamination of environmental media.

20. Program shortfalls.

- Installation access by unauthorized commercial exterminators/pesticide applicators occurred at least once during the review period. This involved pest control work by a contractor for 1st Advantage Federal Credit Union. Other unauthorized have occurred in the past.
- Some tenant organizations are not complying with operating agreements, and in several cases these agreements have expired or lack narrative on meeting installation/AF pest control policies.
- No reports have been submitted by PMQAEs to the IPMC for any of the contracts that involve pest control.
- Trained PMQAE is lacking for railroad maintenance contract (due to herbicide treatments being required).

21. Future actions needed.

- Continued cooperative efforts between 733 CES and MAHC DPH on mosquito, tick and associated pathogen surveillance. This is challenged by personnel turnover for both organizations during the review period.
- Tick warning signage installation at entrances to Training Areas and the Fort Eustis Nature Trail.
- Develop a means of preventing unauthorized commercial exterminators/pest control firms from entering the installation.
- Allow more time for the IPMC to review mosquito counts and pest management records/reports.
- Explore the possibilities of testing mosquitoes for West Nile Virus and Eastern Equine Encephalitis, as well as the tick-borne pathogens Heartland Virus, Bourbon Virus, Deer Tick Virus, and Babesia microti (causative agent for human babesiosis) at an AF laboratory.
- Re-examine BOS contractor equipment calibration.
- Implement forest arthropod surveillance as currently articulated in the IPMP. This was a challenge during the review period due to personnel turnover occurring within CEIE.
- Continue to pursue opportunities to educate the installation community.
- Identify the responsible party for maintaining operating agreements and support agreements for tenants on the installation and update or revise pest management requirements as applicable and obtain updated signatures (including but not necessarily limited to the James River Reserve Fleet, 1st Advantage Federal Credit Union, Bank of America, and commercial food handling facilities).
- Continue to ensure annual invertebrate/arthropod inventory updates are cross-referenced with the Integrated Natural Resources Management Plan.
- Ensure the Integrated Natural Resources Management Plan Annual Review Summary is cross-referenced with this IPMP annual review.
- Reduce tick-borne disease (and chigger bite) risks by eliminating tall grass/weeds/invasive herbaceous vegetation (particularly johnsongrass) in proximity to work/training areas. Routine mowing in some areas can accomplish this such as right of way along Toner Road, golf course maintenance areas, and areas north of Madison Avenue between Harrison Loop Road network area.
- IPMC needs access to the AEM and EMAC slides to update IPM sections.
- Schedule an AFCEC/COSC Staff Assistance Visit in the approximate June 2024 time frame to prepare possible new IPMC, prepare for the next IPMP, and develop a new Aerial Application of Pesticides Statements of Need.

VIII. Installation Pesticide Application Points of Contact

	Base Operations Support Pest Control (contracted)	Base Operations Support Pest Control (contracted)
Name	Mike Parise	Keith Banks
Duty Title	Pest control applicator/technician	Pest control applicator/technician
Office Symbol	Alutiiq	Alutiiq
Street Address	BLDG 1422	BLDG 1422
City, State, Zip Code	Fort Eustis, VA 23604	Fort Eustis, VA 23604
Phone number	757-878-2585	757-878-2585
DSN	826-2585	826-2585
E-MAIL	Michael.parise.1.ctr@us.af.mil	Keith.banks.1.ctr@us.af.mil

	The Pines Golf Course	Natural Resources/Environmental
Name	Jacob Adams	Timothy P. Christensen
Duty Title	Maintenance Superintendent	Natural Resources Manager/IPMC
Office Symbol	The Pines Golf Course	733 CES/CEIE
Street Address	3518 Mulberry Island Road	1407 Washington Blvd
City, State, Zip Code	Fort Eustis VA 23604	Fort Eustis VA 23604
Phone number	757-878-2252	757-878-4231
DSN	826-2252	826-4231
E-MAIL	jacob.adams.11@us.af.mil	Timothy.christensen.6@us.af.mil

	Base Operations Support Supervisor	Base Operations Support PMQAE
Name	John Fain	Desiree McHan/Jerome Childs (Operations FL/CES)
Duty Title	Contractor	Contracting Officer's Representatives/PMQAEs
Office Symbol	Alutiiq	733 CES/Operations FL
Street Address	BLDG 1425	BLDG 1407 Washington Blvd
City, State, Zip Code	Fort Eustis, VA 23604	Fort Eustis, VA 23604
Phone number	757-878-2578	757- 878-7369/2489
DSN	826-2578	826-7369
E-MAIL	John.fain.ctr@us.af.mil	Desiree.mchan@us.af.mil @us.af.mil Jerome.childs@us.af.mil
	Grounds Maintenance Supervisor	Grounds Maintenance Contract PMQAE
Name	Gary Leckie (contractor)	Janice McGhee (Operations FL/CES)
Duty Title	Contractor	Contracting Officer's Representative/PMQAE
Office Symbol	Byrd Enterprises Unlimited, Inc.	733 CES/Operations FL
Street Address	2000 Main Street	BLDG 1407 Washington Blvd
City, State, Zip Code	Lynchburg, VA 24504	Fort Eustis, VA 23604
Phone number	434-485-8233	757-878-5466
DSN		826-5466
E-MAIL	gleckie@byrdenterprises.net	janice.mcghee@us.af.mil

	Flight Safety/Bird Air Strike Hazard (BASH)*	Railroad Maintenance Contract
Name	Teddy Harlow	Aviance Jenkins
Duty Title	Airfield Manager	Contracting Officer's Representative
Office Symbol	1 st Fighter Wing	733 CES/Operations FL
Street Address	BLDG 2411	1407 Washington Blvd
City, ST Zip Code	Fort Eustis, VA 23604	Fort Eustis, VA 23604
Phone Number	757-878-5865	757-878-7385
DSN	826-5865	826-7385
E-MAIL	Teddy.harlow@us.af.mil	Aviance.jenkins@us.af.mil

* Zachary Cullum (Zachary.Cullum@usda.gov/757-848-7821) is the US Department of Agriculture (USDA) agent providing BASH support at the Felker Airfield.

IX. FY22 Annual IPMP Certification

	This FY22 Annual IPMP Update is submitted by:	Command IPMP Annual Update Certification:
Name	Timothy P. Christensen	Armando Rosales
Duty Title	IPMC	Pest Management Professional/Command Entomologist
Office Symbol	733 CES/CEIE	AFCEC/COSC
Street Address	1407 Washington Blvd	139 Barnes Dr. Suite 1
City, ST Zip Code	Fort Eustis VA 23604	Tyndall AFB, FL 32403
Phone Number	757-878-4231	937 477-2272
DSN	826-4231	DSN
E-MAIL	Timothy.christensen.6@us.af.mil	Armando.rosales.1@us.af.mil
		Signature:

Maintain a signed copy of this form with the IPMP.

APPROVED BY:

MIGUEL L. CAPELLAN, GS-14, DAF
 Director, 733d Civil Engineer Squadron

Annex A: Updates to the IPMP

The following changes identified in Annual Review for May 2021-May 2022 remain in effect:

1. Add the acronym “RIFA (Red Imported Fire Ants)” to acronym list (page vii).
2. IX (Program Administration). 14. (Status of Arthropod Disease Vectors Surveillance and Control). A. (Mosquitoes on Fort Eustis). This paragraph is revised to read as follows (page 28):

The following list is a consolidation of those mosquito genera and species documented on the installation based on surveys performed in 2009, 2016, 2017 and 2021:

Genera:

Aedes
Anopheles
Coquillettidia
Culex
Culiseta
Orthopodomyia
Psorophora
Uranotaenia

Species:

<i>Aedes albopictus</i>	<i>Aedes cinereus</i>
<i>Aedes hendersoni</i>	<i>Aedes infirmatus</i>
<i>Aedes j. japonicas</i>	<i>Aedes sollicitans</i>
<i>Aedes taeniorhynchus</i>	<i>Aedes triseriatus</i>
<i>Aedes vexans</i>	<i>Anopheles bradleyi</i>
<i>Anopheles crucians</i>	<i>Anopheles punctipennis</i>
<i>Anopheles quadrimaculatus</i>	<i>Coquillettidia perturbans</i>
<i>Culex erraticus</i>	<i>Culex pipiens</i>
<i>Culex pipiens-quinquefasciatus</i>	<i>Culex restuans</i>
<i>Culex salinarius</i>	<i>Culex territans</i>
<i>Culex trivittatus</i>	<i>Culiseta impatiens</i>
<i>Culiseta inornata</i>	<i>Orthopodomyia signifera</i>
<i>Psorophora ciliate</i>	<i>Psorophora columbiae</i>
<i>Psorophora ferox</i>	

3. IX (Program Administration). 14. (Status of Arthropod Disease Vectors Surveillance and Control). B. (Ticks on Fort Eustis). This paragraph is revised to read as follows (page 29):

The following tick species and representative vectored pathogens (and disease condition they are capable of causing) have been documented on the installation as of 2021:

4. Appendix D – Aerial Application of Pesticides. This appendix is voided for mosquito control (and forest pest control) until an Environmental Assessment and a new Aerial Application of Pesticides Statement of Need (AAPSON) are completed. This appendix is also considered void for aerial application of herbicides against vegetation (primarily common reed) until a new AAPSON is approved for aerial herbicide treatments.

5. Appendix O: Red Imported Fire Ant Management Plan.

A. Change paragraph 2 (Responsibilities). C (Operations Flight and Engineer Flight) to read (page O-2):

Operations and Engineer Flights. Flight Chiefs shall direct project managers (PM) and Contract Officer's Representatives (COR) to ensure movement/transfer of soil and other regulated articles (identified in paragraph 3 below) is performed in accordance with Environmental Management Procedure (EMP) 4.4.6.16 (Contracting JBLE-Eustis Environmental Special Conditions and Affirmative Procurement), section 11.1.7.

B. Change paragraph 3 (RIFA control techniques) to read (page O-3):

RIFA management techniques.

- A. JBLE-Eustis shall conform operations to comply with Virginia's Imported Fire Ant Quarantine (Title 2 Virginia Code Chapter 315, Virginia Imported Fire Ant Quarantine for Enforcement of the Virginia Pest Law).
- B. Soils and other articles regulated under this quarantine shall not be brought onto the installation unless written confirmation indicating the articles are free of red imported fire ants (including their eggs and immature stages) that has been confirmed through the Virginia Department of Agriculture & Consumer Services. Environmental Management Procedure (EMP) 4.4.6.16 (Contracting JBLE-Eustis Environmental Special Conditions and Affirmative Procurement), section 11.1.7. Other articles include:
- All soils.
 - Grass sod.
 - Plants with roots with soil attached and rhizomes with soil attached.
 - Hay and straw including pine straw.
 - Mulch, logs, and pulpwood.
 - Any life stage of imported fire ant.

- C. Suspected colonies shall be investigated as quickly as feasibly possible by CEIE natural resources/IPM staff. Staff shall advise units or activities potentially affected by such colonies.
- D. CEIE staff shall issue service order for BOS pest control shop for action. Baits shall be the primary control technique.

6. Change all reference to Civil Engineer Division/CED to Civil Engineer Squadron/CES.

The following represent new updates to the IPMP:

1. IV. PRIORITY OF PEST MANAGEMENT WORK.

Change paragraph 2. C. Venomous animals posing immediate health and safety risks (page 9), to read: Venomous animals occurring on Fort Eustis are represented by widow spiders (*Latrodectus* spp.) and various hymenopteran species (bees, wasps, and hornets) as well as red imported fire ants (*Solenopsis invicta*). The three medically significant venomous snake species occurring in Virginia have never been documented on the installation by qualified natural resources staff/biologists. These three species represent the Eastern copperhead (*Agkistrodon contortrix*), Northern cottonmouth (*Agkistrodon piscivorus*), and timber rattlesnake (*Crotalus horridus*). These species occur to some extent in the local area; however, the likelihood of these species becoming established on the installation remains low based on low local populations, their biology, and habitat conditions. Responses to incidents involving snakes are generally limited to those inside or in immediate proximity to occupied buildings. In such cases, natural resources staff shall remove the snake and release into natural areas of the installation without lethal take. No brown recluse spiders (*Loxosceles reclusa*) have ever been documented on the installation by qualified biologists. The likelihood of this spider occurring on the installation remains low because it is not native to Virginia.

2. VIII. Environmental Considerations. 4. Federally Listed Species. B. Indiana and Northern Long-eared Bats.

Delete “Indiana and” and change this paragraph to read (page 15):

B. Northern Long-eared Bat and Black Rail. The federally threatened Northern Long-Eared Bat (*Myotis septentrionalis*) was originally listed as threatened in 2015. However, its status was upgraded to endangered in Late November 2022. It is the only federally listed species documented on the installation. This species is expected to occur primarily in natural areas (but could conceivably utilize trees in developed/disturbed areas). Pesticide use in natural areas include herbicides to control invasive vegetation or in some cases undesirable vegetation related to habitat management. Treatments of herbaceous vegetation is not expected to impact the bat. Other pesticides used in natural areas could include insecticides and acaricides to control mosquitoes, ticks, and chiggers. Applications would be performed under daytime conditions and only in cases where it is needed to reduce impacts to human health. Aerial applications of

insecticides for mosquitoes could be a more critical technique but occur infrequently and only after an Environmental Assessment and AAPSON have been completed. Insecticides and acaricides would be applied to ground surfaces where ticks and chiggers have been documented such as bivouac, range firing lines and perimeters. These applications would also be infrequent. The Black Rail (*Laterallus jamaicensis*) is a small marsh bird that was listed as threatened in October 2020. It occurs in the installation's geographical region of influence but has never been documented on JBLE-Eustis based on several wildlife/bird surveys between 1997 and 2021. Furthermore, it is not expected to occur in areas containing common reed which may be treated with herbicides when and where feasible.

3. VII. Health and Safety.

Change entire paragraph 5. General/routine safety procedures are described below for all contractor and government pest control staff. A. Personal protective equipment (PPE). to read:

Appropriate PPE and related protective clothing are required for all individuals applying pesticides on JBLE-Eustis. The appropriate PPE/clothing shall be used as stated by the respective pesticide label. Such PPE/clothing obtained with appropriate training completed before handling or applying the respective pesticide. All individuals applying pesticides shall wear appropriate eye protection. All individuals applying pesticides shall wear appropriate protective gloves when specified by the respective pesticide label, when handling pesticide containers, when mixing pesticide formulations, when applying pesticides from motorized conveyances (unless the applicator is totally enclosed in the conveyance cab such that the applicator cannot be exposed to the pesticide), and when preparing or adjusting application equipment. Respirators, when required are to be cleaned daily after use, to have cartridges replaced after 8 hours of actual use and to be stored when not in use in a sealed container. Pest controllers are instructed on the proper fitting of respirators and will be clean shaven when respirators are worn. Annually, pest controllers will be medically evaluated for respirator wear and shall be fit-tested by the installation Safety Office/Industrial Hygiene or a licensed industrial hygienist using a quantitative procedure. Pest control personnel shall not wear street clothing while applying pesticides. All clothing worn during pesticide application must be laundered at the CES pest control shop, Pines Golf Course, or by using a laundry service. At no time shall such clothing be worn home or laundered at home. Additionally, all pesticide applicators shall shower at the end of the workday using installation shower facilities. All pesticide applicators shall refrain from smoking during handling, mixing, or applying pesticides. An emergency eyewash is placed on each motorized conveyance used for applying pesticides. An emergency eyewash fountain and deluge shower shall be located in all pesticide mixing rooms and pesticide storage rooms. Safety is given the top priority, especially when applying and handling pesticides and limiting pesticide exposure to pesticide applicators and all installation personnel as a whole.

4. IX. Program administration.

Change paragraph 8. List of Approved Pesticides (page 21), to read:

All pesticides intended for use on the installation must exist on the Fort Eustis List of Approved Pesticides. The IPMC maintains this list which is updated periodically based on the following:

- (a) Pesticides may no longer be registered by the EPA.
- (b) Pesticide is not authorized for use in Virginia.
- (c) CORs/contractors request new pesticides.
- (d) DoD/AF does not authorize certain pesticides.
- (e) New information becomes available.

This list is formatted as an Excel spreadsheet and posted on the 733 CES SharePoint. Additionally, it is distributed to applicators who do not have access to the SharePoint.

Change paragraph 10. Reports and Records (page 22), completely to read:

A. General. All pest control work and pesticide applications shall be recorded and made available to the IPMC who prepares various reports based on these records.

B. Record keeping. All pest control activities (including surveillance, monitoring, administrative, and non-chemical and chemical controls used) is accomplished using an electronic DD Form 1532-1, Pest Management Maintenance Record.

- (1) All contracts involving pest management shall require use of this form as record keeping.
- (2) PMQAEs, contractors, other authorized applicators, and DoD certified applicators shall ensure these records are submitted to the IPMC within 5 working days of each pest control task unless otherwise specified by the IPMC. BOS contractor records are maintained on the SharePoint.
- (3) The electronic DD Form 1532-1 contains two tabs:
 - Pesticides Applied. This tab articulates the actual application of given pesticides.
 - Surv_NonChemical Animal Control. This tab articulates non-pesticide techniques used (such as physical or mechanical control techniques), surveillance & monitoring, assessments to determine the control technique used (and should relate to the actual pesticide applications tab), vertebrate pest trapping/removal, and other non-pesticide work.

Data entered for the Pesticides Applied tab include:

- Date of Application
- Time of Application
- Origin (Purpose for the application)
- Applicator's name
- Applicator Certification Number (VDACS Pesticide Applicator Certificate)
- Targeted Pest(s)
- Size of Area Treated
- Unit of Measure of Area Treated
- Actual location (i.e., building number, training area number, etc.)
- Site/Location Type (the type of location or area, i.e., building, field, forest, etc.)
- Operation/Process (means of doing the application)
- Indoors or Outdoors
- Pesticide Trade Name
- EPA Registration Number
- Active Ingredient & %
- Product formulation
- Amount of Concentrate Used for Mixing
- Unit of measure for Amount of Concentrate Used for Mixing
- Final % Concentration of finished product
- Amount of final solution/mixture applied
- Unit of Measure for Amount of final solution/mixture applied
- Total Time Invested in Hours
- Additional Comments

Data entered for the Surv_NonChemical Animal Control tab include:

- Date of Application
- Time of Operation
- Target Pest(s)
- Origin (Purpose for the action)
- Applicator's name
- Applicator Certification Number
- Surveillance/Nonchemical Device Used
- Number of traps/units placed (as applicable)
- Units of Measure if applicable
- Actual location (i.e., building number, training area number, etc.)
- Site/Location Type (the type of location or area, i.e., building, field, forest, etc.)
- Operation/Process (what was performed, i.e., pest surveillance, inspection, mechanical control, etc.)
- Indoors or Outdoors
- Area Inspected/Service (size of the area inspected or serviced)
- Units of Measure for Area

- Total Time Invested in Hours
- Additional Comments

Change paragraph 13, Pesticide Security, to read:
Pesticide Storage, Mixing, and Security.

Change paragraph 13, B (page 27) to read:

Pesticide storage, mixing, and security. Pesticide storage, mixing, and security requirements shall be met by all pesticide applicators whether such persons operate daily from facilities on the installation or perform short-term pesticide work. The following requirements shall be met:

- Pesticide storage areas must be approved in advance by the IPMC. Currently, there are two authorized pesticide storage and mixing locations: BLDG 1422 (733 CES BOS contractor) and BLDG 3515 (The Pines Golf Course).

Both locations have appropriate physical security, secondary containment, structural integrity, hazardous materials storage capability, mixing facilities, and fume hoods. These facilities shall be secured in accordance with installation physical and operational security policies. These facilities shall be locked when not in use. All other contractors/applicators are not authorized to store pesticides or mix pesticide formulations on the installation. All contracts (except for the BOS contract) that include narrative stating that storage and mixing is not authorized on the installation. Mixing includes dispensing of water into pesticide storage/application/mixing tanks.

5. Appendix A: Pesticides Approved for Use at Fort Eustis. Change all existing narrative below “NOTE:” (page A-1), to read:

The Installation Pest Management Coordinator (IPMC) maintains a list of pesticides authorized to be used at Fort Eustis. This list is essentially a living document as periodic changes are needed. The list is formatted as an Excel spreadsheet and posted on the 733 CES SharePoint. Contract Officer Representatives within the Operations and Engineering Flights as well as the BOS contractor can access this list routinely. The IPMC shall forward the list to the Pines Golf Course Superintendent and other applicators.

6. Appendix B: Description of BOS Pest Control Contract Operation and General Procedures for Pest Control.

Change Section XIII Documentation, paragraph 9 - Monthly Pest Management Report* (page B-19), to read:

The IPMC reviews pest management records and prepares reports based on pest control actions and pesticide applications performed by the BOS contractor in each given month. The contractor enters data into the electronic DD Form 1532-1 (designed in MS Excel), Pest management Maintenance Record available on the contractor’s SharePoint. The electronic DD Form 1532-1 contains two tabs:

- Pesticides Applied. This tab articulates the actual application of given pesticides.
- Surv_NonChemical Animal Control. This tab articulates non-pesticide techniques used (such as physical or mechanical control techniques), surveillance & monitoring, assessments to determine the control technique used (and should relate to the actual pesticide applications tab), vertebrate pest trapping/removal, and other non-pesticide work.

Data entered for the Pesticides Applied tab include:

- Date of Application
- Time of Application
- Origin (Purpose for the application)
- Applicator's name
- Applicator Certification Number (VDACS Pesticide Applicator Certificate)
- Targeted Pest(s)
- Size of Area Treated
- Unit of Measure of Area Treated
- Actual location (i.e., building number, training area number, etc.)
- Site/Location Type (the type of location or area, i.e., building, field, forest, etc.)
- Operation/Process (means of doing the application)
- Indoors or Outdoors
- Pesticide Trade Name
- EPA Registration Number
- Active Ingredient & %
- Product formulation
- Amount of Concentrate Used for Mixing
- Unit of measure for Amount of Concentrate Used for Mixing
- Final % Concentration of finished product
- Amount of final solution/mixture applied
- Unit of Measure for Amount of final solution/mixture applied
- Total Time Invested in Hours
- Additional Comments

Data entered for the Surv_NonChemical Animal Control tab include:

- Date of Application
- Time of Operation
- Target Pest(s)
- Origin (Purpose for the action)
- Applicator's name
- Applicator Certification Number
- Surveillance/Nonchemical Device Used
- Number of traps/units placed (as applicable)

- Units of Measure if applicable
- Actual location (i.e., building number, training area number, etc.)
- Site/Location Type (the type of location or area, i.e., building, field, forest, etc.)
- Operation/Process (what was performed, i.e., pest surveillance, inspection, mechanical control, etc.)
- Indoors or Outdoors
- Area Inspected/Service (size of the area inspected or serviced)
- Units of Measure for Area
- Total Time Invested in Hours
- Additional Comments

7. Appendix G: IPMP Implementation Plan.

Change paragraph 4, Additional implementation requirements, C. Access to the IPMP (page G-5) to read:

Completed/signed IPMP and annual reviews are distributed to 733 CES Flight Chiefs (Operations FL, Engineering FL, Installation Management FL, and Fire & Emergency Services). Flight Chiefs are responsible for ensuring their PMQAEs and contractors have access to these documents. The IPMC distributes these documents to FSS/Pines Golf Course, other contractors not associated with 733 CES (as applicable), JBLE-Eustis Department of Public Health, and AFCEC. Additionally, completed/signed IPMP and annual reviews are posted on the JBLE website at the following link: <https://www.jble.af.mil/Units/Army/Eustis-Environmental/>.

8. Appendix J: JBLE Pesticide Application Record Report.

Change the appendix title page (page J-1) to read:

Appendix J: Pest Management Record

Change Page J-2 to read:

JBLE-Eustis Pest Management Record. All pest management tasks and functions performed by contractors, other applicators, and DoD certified applicators shall be recorded using the electronic form DD Form 1532-1, Pest Management Maintenance Record.

All pesticide applicators/pest control staff enter data into the electronic DD Form 1532-1 (designed in MS Excel), Pest management Maintenance Record. This form is available on the BOS contractor SharePoint or has been distributed to users by the IPMC. The electronic DD Form 1532-1 contains two tabs:

- Pesticides Applied. This tab articulates the actual application of given pesticides.
- Surv_NonChemical Animal Control. This tab articulates non-pesticide techniques used (such as physical or mechanical control techniques), surveillance & monitoring, assessments to determine the control technique used (and should relate to the actual pesticide applications tab), vertebrate pest trapping/removal, and other non-pesticide work.

Data entered for the Pesticides Applied tab include:

- Date of Application
- Time of Application
- Origin (Purpose for the application)
- Applicator's name
- Applicator Certification Number (VDACS Pesticide Applicator Certificate)
- Targeted Pest(s)
- Size of Area Treated
- Unit of Measure of Area Treated
- Actual location (i.e., building number, training area number, etc.)
- Site/Location Type (the type of location or area, i.e., building, field, forest, etc.)
- Operation/Process (means of doing the application)
- Indoors or Outdoors
- Pesticide Trade Name
- EPA Registration Number
- Active Ingredient & %
- Product formulation
- Amount of Concentrate Used for Mixing
- Unit of measure for Amount of Concentrate Used for Mixing
- Final % Concentration of finished product
- Amount of final solution/mixture applied
- Unit of Measure for Amount of final solution/mixture applied
- Total Time Invested in Hours
- Additional Comments

Data entered for the Surv_NonChemical Animal Control tab include:

- Date of Application
- Time of Operation
- Target Pest(s)
- Origin (Purpose for the action)
- Applicator's name
- Applicator Certification Number
- Surveillance/Nonchemical Device Used
- Number of traps/units placed (as applicable)
- Units of Measure if applicable
- Actual location (i.e., building number, training area number, etc.)
- Site/Location Type (the type of location or area, i.e., building, field, forest, etc.)
- Operation/Process (what was performed, i.e., pest surveillance, inspection, mechanical control, etc.)
- Indoors or Outdoors
- Area Inspected/Service (size of the area inspected or serviced)
- Units of Measure for Area

- Total Time Invested in Hours
- Additional Comments

7. Change Appendix M-2 Mosquito Management Plan, paragraph 4 Response Plan, B Materials and methods, (2), page M-15 is considered avoid as aerial applications of pesticides remains unavailable until an EA is signed and new AAPSON has been approved.