DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 133RD AIRLIFT WING (AMC)
SAINT PAUL MINNESOTA

10 October 2024

MEMORANDUM FOR FEDERAL AVIATION ADMINISTRATION (FAA)

FROM: 133 OG/CC
133d Operations Group
641 Spitfire Ave
Saint Paul, MN 55111-4116

SUBJECT: Petition for Exemption to Title 14 of the Code of Federal Regulations (CFR) part 91.209 (Aircraft Lights) During Military Training Flights - Ray Miller Army Airfield Class D Airspace

References: (a) 14 CFR 91.209 (Aircraft Lights)
(b) 14 CFR 11.81 (Petitions for Rulemaking and for exemption)
(c) 8900.1 CHG 920 Vol 3 Ch. 2 Sec.1 (Exemptions, Deviations, Waivers)
(d) DAFMAN13-217 paragraph 4.4-4.5 (AMP-4)
(e) HQ AMC C-130 AMP-4 Training Syllabus 12 Dec 2022 v2

1. The 133d Operations Group (133OG) requests FAA approval to this petition for exemption to 14 CFR 91.209, enabling 133OG pilots to conduct landings at Ray Miller Army Airfield (KRYM) under Airfield Marking Pattern (AMP) level 4 conditions (lights out/unmarked airfield as described by DAFMAN13-217 paragraph 4.5) using covert aircraft lighting within the KRYM Class D airspace. KRYM staff and 133OG leadership have agreed to safety measures and procedures defined in the attached Letter of Agreement during AMP-4 operations to ensure safety of training aircrew, airfield staff, and civilian air traffic.

2. In accordance with DAFMAN13-217 paragraph 4.5, aircrew must be approved and trained by their Major Command (MAJCOM) to conduct AMP-4 operations. In accordance with AFMAN11-202V3_AMCSUP para 3.23.2, pilots are restricted to military airfields or civilian airports with an appropriate letter of agreement during non-contingency operations from unlighted runways. The National Guard Bureau (NGB) serves as operational MAJCOM to the 133OG and has approved AMP-4 training following the Air Mobility Command (AMC) training syllabus per the attached Form 679. The HQ AMC AMP-4 Training Syllabus paragraph 2.a requires pilots to land at AMP-4 training fields using covert (infrared) aircraft lighting. When covert lighting is engaged on 133OG C-130H3 aircraft (registration numbers 95-1001, 95-1002, 96-1003, 96-1004, 96-1005, 96-1006, 96-1007, & 96-1008), the aircraft's navigation/position lights required by 14 CFR 91.209 automatically switch to infrared lighting due to the aircraft's electrical design. The 133OG's primary training location is Ray Miller Army Airfield (KRYM) airfield (Class D airspace), which is not located in a Military Operations Area (MOA), Restricted Area, or Warning Area. To conduct and achieve sustained proficiency in AMP-4 landings at KRYM using covert aircraft lighting as prescribed by the AMC AMP-4 training syllabus, an approved exemption to CFR 91.209 is required.

3. The 133d Operations Group has worked extensively with KRYM airfield management staff and tower controllers, as well as both unit's safety offices to conduct risk assessment and mitigation analysis for conducting this training in KRYM class D airspace. The organizations collectively accomplished the attached Form 2977 Deliberate Risk Assessment worksheet, and have signed the attached Letter of Agreement defining contractual responsibilities and safety measures employed during planning and mission execution.

4. Commander, Air Mobility Command (AMC) directs all Mobility Air Force units to train and achieve proficiency in conducting AMP-4 landings in preparation for potential near-peer conflicts. AMC has also directed AMP-4 proficiency as a permanent training requirement, mandating six AMP-4 landings accomplished per year for basic qualified pilots as well as a quarterly currency requirement of one AMP-4 landing per pilot. Minneapolis FAA Flight Standards District Office (FSDO) has approved the 133OG's waiver request to 14 CFR 91.209 allowing 133OG pilots to begin AMP-4 training; however, the waiver expires October 25, 2024. Minneapolis FSDO advises the 133OG that FAA approved exemption is required to allow sustained training.

5. The 133OG has evaluated the feasibility of conducting AMP-4 training at alternative locations with approved exemptions to 14 CFR 91.209 in place, however no such location exists within 150 nautical miles of the 133OG home station of KMSP that possesses an unimproved landing surface which is also required by the HQ AMC AMP-4 Training Syllabus.

6. It is in the public's best interest that this petition for exemption be approved as disapproval will prevent 133OG pilots from obtaining/maintaining proficiency in AMP-4 landings as directed by the HQ AMC C-130 AMP-4 Training Syllabus. Failure to obtain/maintain proficiency in this mission set fails to meet Commander AMC's directives, and degrades the 133OG's mission readiness by not achieving wartime preparedness.

7. This memorandum may serve as summary for publishing to the federal registry.

8. Please contact Major Charles "Shadow" Moore with the 133d Operations Support Squadron Tactics Office with any questions or concerns. He is reachable via telephone at 612-713-2488 or via email at charles.moore.25@us.af.mil.

AMENT.PETER.JOHN.1101766418 Digitally signed by AMENT.PETER.JOHN.1101766418 Date: 2024.10.16 17:22:34 -05'00'

PETER J AMENT, Colonel, USAF
Commander, 133d Operations Group

6 Attachments:
1. HQ AMC C-130 AMP-4 Training Syllabus, 12 Dec 2022 v2
2. DAFMAN13-217 4.4-4.5 Excerpt
3. AFMAN11-202V3_AMCSUP 3.22-3.23 Excerpt
4. LOA AMP-4 Ops Covert 133OG_KRYM
5. Form 679 Blacked Out Landings_Covert_NGB_Approved
6. Form 2977 C-130 Covert lighting operations risk assessment

C-130 Airfield Marking Pattern 4 (AMP-4)

Training Syllabus

12 Dec 22

Air Mobility Command

Controlled Unclassified Information (CUI)

DEPARTMENT OF THE AIR FORCE
Headquarters Air Mobility Command
Scott AFB IL 62225-5302

C-130 AMP-4 Syllabus

This syllabus provides MAF C-130 aircrew appropriate training to safely conduct AMP-4 operations. It prescribes the course content, instructions to conduct the training, and the approximate time necessary to complete all requirements. This syllabus outlines the training required to achieve the proficiency specified in the course training guide. OG/CCs will ensure aircrews are trained IAW MAJCOM/A3 (or equivalent) guidance and this syllabus. OG/CCs will designate initial cadre personnel who may self-certify after completion of all syllabus requirements, or direct SQ/CC as appropriate to ensure all syllabus requirements are met. Forward suggestions to HQ AMC/A3TA, 402 Scott Dr, Unit 3A1, Scott AFB IL 62225-5302 or call DSN 779-2007.

OFFICIAL

CARROLL.BENJAMIN.L.1247609373 Digitally signed by CARROLL.BENJAMIN.L.1247609373 Date: 2022.12.16 07:20:14 -06'00'

BENJAMIN L. CARROLL, Colonel, USAF
Chief, Aircrew Tactics & Training Division
Headquarters Air Mobility Command

Summary of Changes:
This is a new syllabus and must be reviewed in its entirety.
Pages: 12
OPR: HQ AMC/A3TA
Certified by: HQ AMC/A3T
Editor: Major Loretz Ramseur

DISTRIBUTION: All copies are in electronic format.

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Chapter 1

COURSE DESCRIPTION

1. **Course Title —** C-130 AMP-4 Certification.
2. **Course Number —** CH06YM.
3. **Course Entry Prerequisites —** C-130 Mission Qualification
4. **Course Objective —** Certify C-130 Pilots and Navigators in AMP-4 operations.
5. **Course Duration —** 1 to 2 training days.
6. **Status Upon Completion/Certification —** Upon completion of CH06YM (AMP-4 Certification), document certification on the Letter of X's. Flight training will be documented using the attached AF Form 4024 or MAJCOM-approved electronic equivalent (i.e., GTIMS). C- 130 AMP-4 Certified FPs do not require additional AMP-4 training upon upgrade to AC.
7. **Ground Training**

Ground Training		*Hours*
Mission Planning		*3.0*
Crew Resource Management		*1.0*
	Total	*4.0*

8. **Flight Training**

Flight Training (Single Ship)		*Hours*
Simulator 1 (Optional)		*2.0*
Flight 1 (Night Required)		*2.0*
	Total	*2.0 (4.0 Optional)*

Chapter 2

COURSE ADMINISTRATION

Section A – Syllabus Management

1. Syllabus Interpretation - This syllabus is directive in nature and will be followed as written. If no clear syllabus guidance exists, resolve the situation using the appropriate MAJCOM/A3 (or equivalent) chain of command.

2. Syllabus Waivers – An approved syllabus waiver is required for any planned exception to the syllabus caused by special or unusual circumstances. Waiver approval authority for this syllabus is MAJCOM/A3T (or equivalent). This training is designed to be accomplished in one local training sortie. Permanent or blanket waivers are not authorized but should be recommended as a syllabus change to HQ AMC/A3T. Do not accomplish or omit any training requested in a waiver until notification of approval. Maintain a record of all approved waivers in the student's training folder or MAJCOM-approved electronic equivalent.

3. Syllabus Deviations – A syllabus deviation is any unplanned variation from syllabus requirements such as prerequisite flow or failure to complete a training event. All syllabus-directed training must be accomplished unless a waiver request is approved. If unforeseen circumstances result in an omission of required training, the OG/CC will determine if omitted training can be accomplished later in the syllabus flow without adversely affecting the quality of student training. Document all syllabus deviations, OG/CC directed corrective actions and the training omission in the student's training folder.

4. Incomplete Training – Members may not self-eliminate from this course. Students who do not complete this course will be removed from training status by their respective squadron training office with approval/concurrence from Sq/CC.

5. In-Unit Course Completion – This training is designed to be completed in-unit by designated cadre instructors, or as directed by the SQ/CC.

Section B – Training Management

1. Administration

a. *Course Length* – This course is scheduled to be completed in 1-2 training days. Limit in-unit training time to 60 calendar days (90 days for ARC units). The squadron commander may extend training time up to 15 days. Extensions over 15 days require MAJCOM/A3T (or equivalent) approval.

b. *Academic Training* – Conducted through instructor mediated interactive lectures (MIL), and ground training. (GT)

c. *Instructor Responsibilities* – Instructors are responsible for training accomplishment, however, students should monitor their own training.

d. *Additional Training* – In the event a student fails to complete the course in the recommended time, it is the responsibility of the squadron training office to ensure continued training until either the student is certified or is removed from training by the squadron commander.

2. Training Requirements and Restrictions

a. Minimum Hour Requirement. There is no minimum hour requirement.

b. Proficiency Advancement. Proficiency advancement is not authorized for this syllabus.

c. Ground Training. Ground Training will be accomplished IAW this syllabus and C-130 Tactics Bulletin (TB) 22-XX C-130 AMP-4 Airland Operations (or AFTTP 3-3.C-130 series, when tactic is incorporated therein). Document completion on AF Form 1522 or MAJCOM-approved electronic equivalent (i.e., GTIMS).

d. Flight Training. Flight Training will be accomplished IAW this syllabus and C-130 TB 22-XX (or AFTTP 3-3.C-130 series, when tactic is incorporated therein).

3. Break In Training Events – The Squadron Operations Officer may authorize an additional training event due to extended training delays. As a guide consider 14 calendar days (30 days for ARC) without a training event an extended break. Use this authority only when the remaining syllabus events are insufficient to compensate for the break in training. All additional training will be documented in the student's training folder. Additional training events will be limited to that required for the student to regain the proficiency level attained before the break in training.

4. Demonstrations – Individual procedures may be demonstrated by the instructor prior to the student attempting them, based upon event difficulty and student ability. Instructor demonstrated events will not be credited to the student.

5. Cockpit/Crew Resource Management (CRM) – CRM Skills will be integrated into all flight briefings and debriefings IAW AFI 11-290, Cockpit/crew Resource Management Training Program. The following items will be discussed:

a. Situational Awareness

b. Communication

c. Decision Making

d. Task Management

e. Mission Planning/Briefing/Debriefing

f. Crew Coordination

6. Briefing Requirements – Briefings set the tone of the mission. Briefing times will be established by the instructor for training device missions. Briefing items should be the minimum established in the mission briefing guide. Flight briefing times will be scheduled by the flight instructor. Accomplish a post-mission briefing to measure the success of the mission.

7. Regression Rules – Regression occurs when a maneuver is graded Unsatisfactory (U) after having achieved Proficient (P) in the same task. Once an individual has received "P" for a task, the only subsequent grade allowed is either "P" or "U". Regression from a "P" to a "U" requires an explanation in the student's training folder. The overall grade is at the instructor's discretion.

8. Commander's Review Process – If the individual cannot receive certification, the unit commander should remove the student from training and recommend to the appropriate convening authority that a Flying Evaluation Board (FEB) should be convened in accordance with DAFMAN 11-402 depending on the circumstances.

Section C – Grading Procedures

1. Performance and Knowledge Standards – Measure student performance/knowledge against the Course Training Standards (CTS) and the Required Proficiency Level (RPL). These standards and proficiency levels are drawn from the Career Field Education and Training Plan (CFETP) Specialty Training Standard (STS). The RPL is the minimum level the student must accomplish as per the CTS.

a. Performance Standard

Code	Performance is	Definition
1	Extremely Limited	Individual can do most activities only after being told or shown how.
2	Partially Proficient	Individual can do most of the behaviors, but not necessarily to the desired levels of speed, accuracy, and safety.
3	Proficient	Individual can do and show others how to do the behavior in an activity at the minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor.
4	Highly Proficient	Individual can do behaviors in an activity at the highest level of speed, accuracy, and safety.

b. Knowledge Standard

Code	Knowledge of	Definition
A	Fact and Nomenclature	Individual can identify basic facts and terms about the subject and when used with a performance code, can state nomenclature, simple facts, or procedures involved in an activity.
B	Principles and Procedures	Individual can explain relationship of basic facts and ,state general principles about the subject and, when used with a performance code, can determine step-by-step procedures for sets of activities.
C	Analysis and Operating Principles	Individual can analyze facts and principles and draw conclusions about the subject and, when used with a performance code, can describe why and when each activity must be done and tell others how to accomplish activities.
D	Evaluation and Complete Theory	Individual can evaluate conditions and, create new rules or concepts about the subject and when used with a performance code, can inspect, weigh, and design solutions related to the theory involved with activities.

2. Individual Task Grading — Each task in the flying phase will be graded using the following grading scale:

a. Briefing Only (B) — Briefing item only.
b. Familiarization (F) — May be accomplished by briefing, demonstration, observation or actual accomplishment.
c. Proficient (P) — Individual has achieved the required proficiency level (per MIF table).
d. Satisfactory (S) — Individual has not achieved the required proficiency level but progress is satisfactory.
e. Unsatisfactory (U) — Individual was previously proficient, but has regressed or progress is unsatisfactory.

Notes

1. Once an individual has received -P for a task, the only subsequent grade allowed is either P or U.
2. Any task graded U must have an associated remark in the training folder.

3. Overall Lesson/Event/Sortie Grade — After grading individual tasks, the instructor will rate the student's overall performance and annotate it on the AF IMT 4023, **Aircrew Training Progress Report**.

The overall grade scale is as follows:

a. *Unsatisfactory (U)* — Unsatisfactory progress on this lesson/event/sortie.
b. *Marginal (M)* — Marginal progress on this lesson/event/sortie.
c. *Good (G)* — Normal progression on this lesson/event/sortie.
d. *Excellent (E)* — Exceptional progression on this lesson/event/sortie.

4. Maneuver Item File (MIF) — Students will be graded on all items listed in the MIF unless exceptions are noted in the training folder.

Section D – Course Training Standards

1. Purpose – To provide individual performance and knowledge standards to certify pilots and navigators to conduct C-130 AMP-4 Airland Operations.

2. Duties and Responsibilities

a. *Student Responsibilities* – Students will accomplish all assigned training.

b. *Instructor Responsibilities* – Instructors are ultimately responsible for the accomplishment of all training requirements.

3. General Proficiency Standards

a. Course Training Standards equate to a proficiency code standard. The student must attain this standard before the completion of training.

b. Task performance and knowledge standards must be per the applicable course training standard established for each lesson. Required proficiency level (RPL) standards are found on the back cover of the AF Form 4022 or MAJCOM-approved electronic equivalent.

c. Refer to the 4024 in this syllabus for the student's required performance and knowledge levels.

Section E – Training Restrictions

1. **General Training Restrictions**. The following restrictions apply:

a. Mission Qualification Training (MQT) and local unit indoctrination will be completed prior to commencing this training syllabus. Squadron commanders may authorize concurrent training syllabi on a case-by-case basis. Document justification in student's training folder or MAJCOM-approved electronic equivalent.

b. C-130 AMP-4 Airland pilot training will be conducted under the direct supervision of a certified instructor pilot occupying a primary crew position. Navigator training will be conducted under the direct supervision of a certified instructor navigator.

c. Group or Squadron CCs should identify initial cadre to facilitate training. Initial cadre should perform all required flight training events in the C-130 WST prior to performing events in an aircraft, if able. A safety observer should be present for initial cadre certification in the aircraft. WST and safety observer are not required for routine training after initial cadre is established.

d. Training flight must be conducted in the actual aircraft at night.

e. Candidate pilots must complete a minimum of 4 pilot flying (PF) and 2 pilot monitoring (PM) NVG-aided landings to any suitable landing surface as described in TB 22-XX C-130 AMP-4 Airland Operations (or AFTTP 3-3.C-130, when tactic is incorporated therein). Candidate navigators must complete a minimum of 2 AMP-4 landings.

2. **Training Profile Recommendation**

a. AMP-4 landings should be accomplished both to a paved runway and a landing zone. The profile is recommended in the following order to build in difficulty as skill and understanding grows. Real world restrictions or instructor discretion may alter this recommendation: IPRA/ARA with overt aircraft lighting, IPRA/ARA with covert aircraft lighting, closed pattern with covert aircraft lighting, straight-in with covert aircraft lighting.

Chapter 3
TRAINING OUTLINE

Ground Training Lesson	Lesson Title	Medium	Hours
Planning & Crew Resource Management		**GT**	**4.0**

SECTION A – Ground Training

GROUND TRAINING (Instructors must emphasize each of the below topics)

- Background
- Operational Requirements
    - Weather
    - Illumination
    - Landing surface criteria
    - Qualifications
- Mission Planning
    - Objective Area (OA) Analysis
    - Landing surface coordinate generation (PFPS or other sources)
    - Weather sources
    - Solar/lunar sources
    - Visual funneling features
- Systems Management
    - CNI-MU / SCNS Landing Zone (LZ) function
    - Integrated precision radar approach (IPRA) / Airborne Radar Approach (ARA)
- Crew Resource Management
    - Briefing
    - Radar usage
    - Cursor target usage
    - CNI-MU / SCNS LZ function
    - IPRA / ARA function
    - Latest touchdown/go-around point
    - Go-around procedure
    - Stabilized approach criteria
    - CRM (pilot flying, pilot monitoring, and navigator)
    - Landing and visual cues

Section B – Flight Training

FLIGHT TRAINING

Flying Training events are ideally executed on one training sortie although this is not requirement in the event of unusual circumstances such as weather or maintenance delays. Complete them as resources and scheduling permit. Instructors and students scheduled for training will schedule an appropriate time and place to plan and brief the mission. Squadron assets and personnel will be available to assist the mission planners.

Lesson Title	*Medium*	*Hours*
Flight 1	FLY	2.0

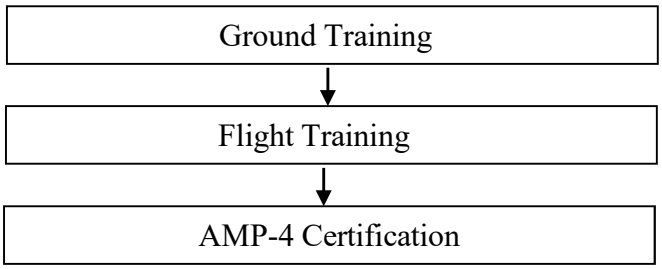
Section C – Maneuver Item File

See attached AF 4024

Chapter 4

General Instructions

Section A - Course Flow/Prerequisites



Section B – Certification

1. Training complete. _____
   Instructor/Date

2. Squadron Training Review. _____
   Training Office Rep/Date

3. SQ/CC (or representative) Certification _____
   Commander/Date

4. SQ Training update "CH06YM" training with SARM _____
   Training Rep/Date

Section C – Glossary

AMP	Airfield Marking Pattern (e.g., AMP-1, AMP-2, AMP-3, and AMP-4)
AMP-4	No airfield markings required
AFI	Air Force Instruction
AFMC	Air Force Material Command AFRC
	Air Force Reserve Component AMC
	Air Mobility Command
ANG	Air National Guard
ARA	Airborne Radar Approach
ARC	Air Reserve Component (ANG and AFRC)
ARMS	Aviation Resource Management System
AT	Additional Training
CFETP	Career Field Education and Training Plan
CNI-MU	Communication/Navigation/Identification Management Unit
CRM	Crew Resource Management
CTS	Course Training Standards

EP	Emergency Procedure
FEB	Flight Evaluation Board
GT	Ground Training
IAW	In Accordance With
IMC	Instrument Meteorological Conditions
IPRA	Integrated Precision Radar Approach
LZ	Landing Zone
NVD	Night Vision Device
NVG	Night Vision Goggle
MAF	Mobility Air Force
MIF	Maneuver Item File
MIL	Mediated Interactive Lectures
MQT	Mission Qualification Training
MWS	Major Weapon System
NGB	National Guard Bureau
RPL	Required Proficiency List
TMS	Training Management System
TRS	Training Squadron
SCA	Self Contained Approach
SCNS	Self Contained Navigation System
STS	Specialty Training Standard
WX	Weather

Terms

Maneuver Item File - A listing of all maneuvers, and proficiency required in each maneuver, for all lessons in the course.

Mission Qualification Training (MQT) – The training necessary to qualify a crewmember in a specific crew position to perform the command or unit operational mission. MQT completion is a prerequisite for MR status.

Syllabus Event - Any individual academic or flying event accomplished and graded complete.

ATTACHMENT 1: Pilot/Navigator 4024

C-130 AMP-4 Airland Operations Training Maneuver Item File	Grading Scale	RPL
Mission Planning		
Collect Mission Data/Information/Generate Coordinates	P	3C
JMPS	P	3C
Other mission planning sources	P	3C
Conduct Objective Area Analysis	P	3C
Identify Funneling Features	P	3C
Determine Tactics/Flight Profile	P	3C
Perform FLIP Planning	P	3C
Collect Weather and Solar/Lunar Illumination Information	P	3C
Make go/no-go determination	P	3C
Determine Systems Management Plan	P	3C
Determine Departure/Arrival Alternates	P	3C
Preflight Procedures		
CNI-MU / SCNS Setup	P	3C
LZ Function	P	3C
IPRA / ARA	P	3C
Radar Setup	P	3C
Departure Procedures		3C
Visual Requirements and Cues	P	3C
Acceleration Time Check	P	3C
CRM	P	3C
Enroute Procedures		
CNI-MU / SCNS Verification	P	3C
Radar Operation	P	3C
Cursor Target Use	P	3C
Crew Coordination	P	3C
Communications	P	3C
Situational Awareness	P	3C
Terminal Area Operations		
Departure and Arrival Briefings	P	3C
CNI-MU / SCNS Execution	P	3C
LZ Function	P	3C
IPRA / ARA	P	3C
Radar Operation	P	3C
Latest Touchdown/Go-Around Point Identification	P	3C
Use of groundspeed vs. touchdown distance timing technique	P	3C
LZ Acquisition	P	3C
Landing (minimum 4 as PF)	P	3C
Pilot Monitoring Duties and Callouts (minimum 2)	P	3C
Navigator Duties and Callouts (minimum 2)	P	3C
Go Around	B	3B
Miscellaneous		
Aircraft Emergencies	B	3B
NVG Failure	B	3B
Mission Debrief	P	3C

BY ORDER OF THE SECRETARY OF THE AIR FORCE

DEPARTMENT OF THE AIR FORCE MANUAL 13-217

22 APRIL 2021

Incorporating Change 1, 19 APRIL 2022

Nuclear, Space, Missile, or Command and Control

DROP ZONE, LANDING ZONE, AND HELICOPTER LANDING ZONE OPERATIONS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing website at **www.e-Publishing.af.mil** for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: AF/A3S

Certified by: AF/A3S (Brig Gen. Palenske)

Supersedes: AFI13-217, 10 May 2007

Pages: 159

This publication implements Air Force Policy Directive (AFPD) 13-2, *Air Traffic Control, Airfield, Airspace, and Range Management* and Air Force Instruction (AFI) 11-200, *Aviation Management*. It provides guidance and procedures for Drop Zone (DZ) and Landing Zone (LZ) operations, and directs DZ, LZ, and Helicopter LZ (HLZ) survey and assessment procedures and processes. It applies to individuals at all levels who are civilian employees or members of the Regular Air Force (RegAF), U.S. Space Force (USSF), Air Force Reserve (AFR), the Air National Guard (ANG), and those who are contractually obligated to comply with Department of the Air Force publications, except where noted otherwise. For the purposes of this Department of the Air Force Manual (DAFMAN), all references to Major and Field Commands (MAJCOMs / FLCOMs) are intended to also reference or include Direct Reporting Units, Field Operating Agencies, and the ANG. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and disposed of in accordance with the Air Force Records Disposition Schedule located in the Air Force Records Management System. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) listed above using the Air Force (AF) Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate chain of command. This publication may be supplemented at any level, but all supplements must be routed to the OPR listed above for coordination prior to certification and approval. **(T-1).** Send recommended supplements to

Headquarters Air Force Special Warfare Directorate (AF/A3S) at **AF.A3S.Workflow@us.af.mil** or to AF/A3S, 1480 Air Force Pentagon, Washington, DC 20330-1480. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See Department of the Air Force Instruction (DAFI) 33-360, *Publications and Forms Management* and **paragraph 1.4** for descriptions of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the requestors commander for non-tiered compliance items. Compliance with the attachments in this publication is mandatory. For further information regarding waivers, see **paragraph 1.4** of this publication. The use of the name or mark of any specific manufacturer, commercial product, commodity or service in this publication does not imply endorsement by the DAF.

SUMMARY OF CHANGES

This interim change revises DAFMAN 13-217 by (1) correcting the email addresses to which SOCOM Form 111 is submitted to AFSOC, (2) updating Table 3.1, *Standard DZ Size Criteria*, Notes 2 and 4 to clarify to which flying platforms and under what circumstance exemptions apply, (3) updating **Table 3.2**, *Standard Point of Impact Placement*, to clarify criteria for C-130 aircraft, (4) updating and clarifying the International Agreements applicable to non-US personnel involved in drop zone operations. A margin bar (|) indicates newly revised material.

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insufficient takeoff lengths on projected LZ and/or needed equipment being rejected. **NOTE:** For C-17 operations, mission planners require the RFF a minimum of 24 hours prior to air land operations.

4.3.3.6. C-17 Semi-Prepared Runway Operations Approvals. OG/CC approval is required for semi-prepared runway operations within the CONUS, Alaska and Hawaii. OPCON MAJCOM/Air Component Commander approval is required in all other instances.

4.3.3.7. C-17 Semi-Prepared Runway Operations DCP. Requirements. For semi-prepared LZs other than matted surfaces, qualified/certified/current personnel must complete a DCP assessment within one week of the first landing to verify the LZ meets C-17 requirements. **(T-3).** The DCP values will be reported back to the OPCON planners. **(T-3). NOTE:** LZSO should perform a DCP analysis following a significant enough rain event on airfields that have soil types susceptible to erosion or material strength reduction. Report any collected controlling reading(s) in the LZ assessment when the estimated WBC is less than the surveyed WBC. **(T-3).**

4.3.3.8. Aircraft Rescue and Fire Fighting (ARFF). Aircraft MAJCOMs publish ARFF requirements for each aircraft type. An example is Air Mobility Command Instruction (AMCI) 11-208, *Mobility Air Forces Management*. Planners should consult with the aircraft OPCON MAJCOM/Air Component Commander early in the planning cycle to determine and meet ARFF requirements. For exercises and contingency response operations lasting no more than 120 days in a 1-year period, overall USAF ARFF guidance is in accordance with Air Fore Pamphlet (AFPAM) 32-2004, *Aircraft Fire Protection for Exercises and Contingency Response Operations*. LZ operations will be in accordance with AFPAM 32-2004 correlating to contingency airfields. **(T-2).** LZSO must relay observed or reported ARFF status to aircrew as defined in **paragraph 4.8.2.2.** **(T-2).**

4.3.3.8.1. Per AFPAM 32-2004, the OPCON MAJCOM/Air Component Commander may exclude ARFF for infrequent flying operations as defined by the following parameters: C-17s will have no more than two takeoffs and two landings within 7 consecutive days, C-130 and smaller aircraft will have no more than four takeoff and four landings within seven consecutive days. **(T-2).**

4.3.3.8.2. Per AFPAM 32-2004, the aircraft user provides ARFF capability at locations other than established USAF facilities.

4.3.3.9. APZ and exclusion areas for LZs. LZSO and aircrew should assess LZ's APZs and exclusion areas to limit and report any factors that may affect safety or performance of flight. Potential hazards within APZs and exclusion areas are listed in **Table A9.1.**

4.4. LZ Markings.

4.4.1. Marking Equipment. Virtually any type of lighting or marking system is acceptable if all participating units are briefed and concur with its use. LZs are normally marked with frangible visual LZ marker systems. Daylight operations typically utilize LZ marker panels. Night operations utilize omni-directional visible lighting systems, with a minimum output rating of 15 candela (or equivalent lumens) and strobe lights (if required). Covert infrared lighting systems are standard for night LZ operations. The USAF standard is that aircrew approved for maximum effort operations are also Night Vision Devices (NVD) qualified. During contingency operations, non-NVD aircrew may utilize LZs and overt lights are

required. **NOTE:** Visual marking devices will identify the edge of the surveyed/assessed usable runway as defined in **paragraph 4.4.3** unless otherwise coordinated. **(T-2).** Adjust markings within the surveyed landing surface as needed to ensure a suitable LZ surface and coordinate with using aircrews. **(T-2).**

4.4.1.1. When anticipating landings at both ends of the LZ, ensure touchdown areas are marked at both ends. **(T-2).**

4.4.1.2. The LZ markings must be clearly visible to the pilot as early on the approach as possible. **(T-2).**

4.4.1.3. Added. To prevent damage to aircraft and injury to personnel, all marking lights and associated equipment must be adequately secured to the ground to withstand the rotor-wash, created by the associated aircraft using the marked HLZ.

4.4.1.4. Daytime Markings.

4.4.1.4.1. Orientation and Color. Erect marker panels upright and face toward the aircraft approach to increase visibility to the pilot. The panels should be orange (Fluorescent Orange, Army Shade 230), cerise (Fluorescent Red, Army Shade 229), or other similar color clearly visible to increase the pilot's ability to see them.

4.4.1.4.2. Materials and Size. Construct temporary panels of fabric, wood, or other materials determined to be suitable by the LZSO. Panel faces should be at least 66 inches wide and 17 inches tall. Manufactured markers or expedient objects used as markers and any supports will be frangible to avoid excessive damage if struck by an aircraft. **(T-2).**

4.4.1.5. Mark loading and taxi areas as determined during mission planning or report deviations to markings. **(T-2).** For night operations, place suitable blue lights 500 feet apart on the straight portions or report deviations to markings. **(T-2).** If requested, reflectors may be placed halfway between the blue lights. Reduce light spacing to 75 feet on curves and at corners or intersections or report deviations to markings. **(T-2).**

4.4.2. Terminal NAVAIDS and Beacons. Special tactics and CRG units can deploy NAVAIDS as directed by the Air Component Commander. Modify the standard NAVAID and/or beacon procedures listed in paragraphs **4.4.2.1** and **4.2.2.2** as required for the tactical environment. NAVAIDs/beacons on LZs should be offset to the edge of the runway to ensure safe landing and taxiing vertical obstacle clearance requirements are met.

4.4.2.1. NAVAID. When used for instrument procedures, recommended placement is 150 feet right of runway edge, abeam the first set of approach threshold lights (panels) in an area free of excessive aircraft, vehicle and troop movements.

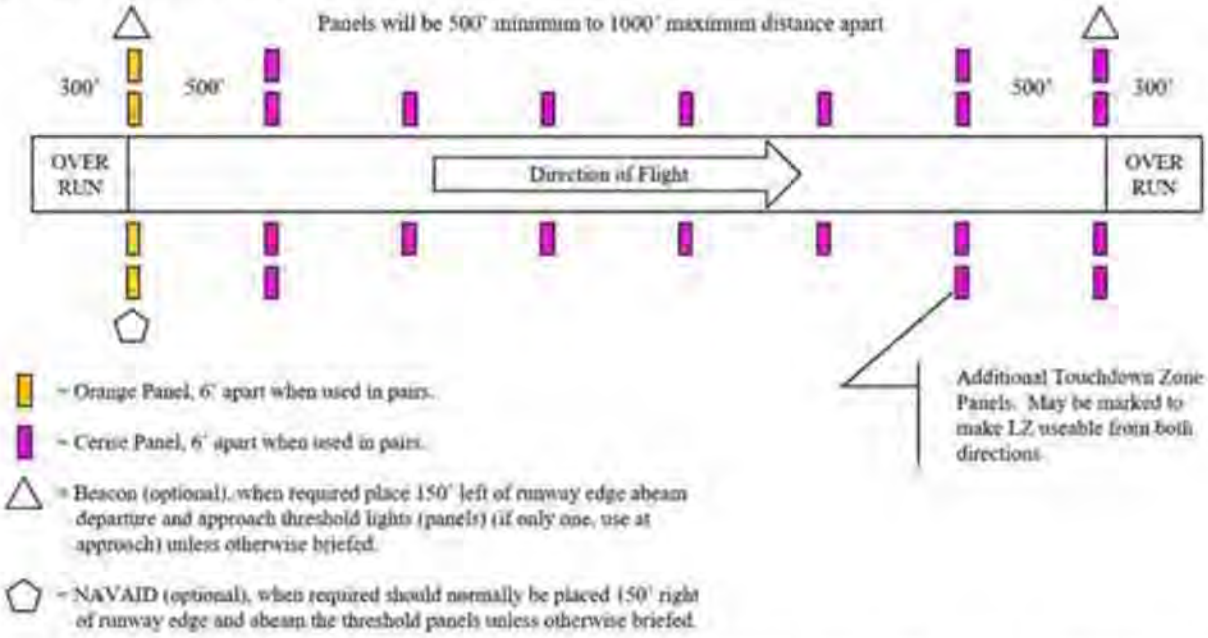
4.4.2.2. Beacons. Ensure to brief aircrews on beacon placement. For Airfield Marking Pattern (AMP)-1 through AMP-3 landings, place approach threshold beacon 150 feet left of the edge of runway abeam the first set of steady lights (panels). Place departure threshold beacon 150 feet left of the edge of runway abeam departure threshold set of steady lights (panels) or flashing strobe. If only one beacon is used, place at approach. Use beacons as depicted in paragraph **4.4.3.1** and **4.4.3.2** for AMP-1 and **paragraph 4.4.3.4** for AMP-3.

4.4.3. Airfield Marking Patterns (AMP). There are four standard types of airfield marking patterns, designated AMP-1 through AMP-4. When required, place panels for AMPs 4'-10'

from the surveyed edge of the runway and place lights for AMPs at 5'-7' from the surveyed edge. **(T-2).** Ensure all markings are visible for using aircrew. Adjust markings within the surveyed landing surface as needed to ensure a suitable LZ surface and coordinate using aircrews. **(T-2).**

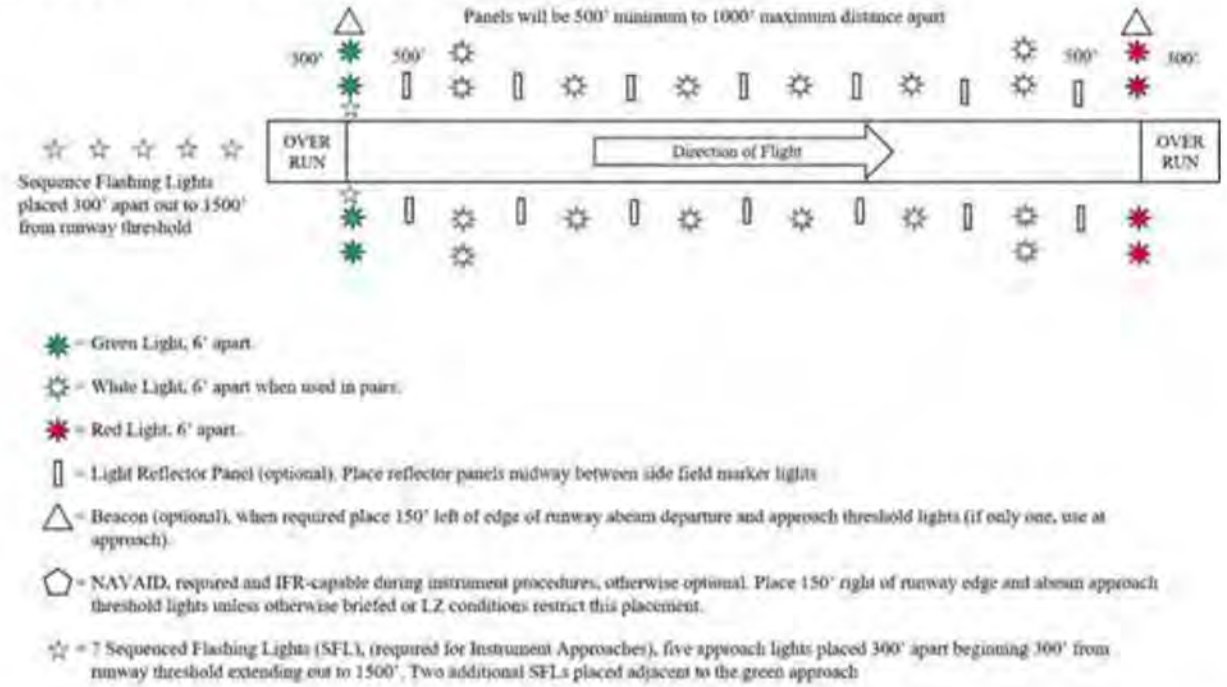
4.4.3.1. AMP-1. AMP-1 is normally used to support day or night VMC airlift missions. See **Figure 4.3** for day markings and **Figure 4.4** for night/instrument markings. These markings also implement STANAG 3570 and Air and Space Interoperability Council requirements. When using the AMP-1 pattern, aircrew mission planners and ACs are authorized to reduce panel markings for well-defined runways during non-instrument approach VMC operations. As a minimum, mark the touchdown zone and the end of the usable runway (not including overrun). **(T-2).** Coordinate reduced marking with all participating elements. **(T-2).**

Figure 4.3. AMP-1 Day.



4.4.3.2. AMP-1 (Instrument Approach). Instrument approaches for contingency LZs require special configuration. Use this configuration to support day or night tactical airlift missions during times of reduced visibility. Aircrew mission planners must not be authorized to reduce or eliminate panels, lights, or electronic navigational aids during limited visibility operations. **(T-1). NOTE:** Instrument approaches to LZs can be developed as MAJCOM certified procedures (See AFMAN 11-202V3). Complete a Federal Aviation Administration (FAA) flight check (instrument approaches) or military aircraft fly-ability check prior to using the LZ/airfield for sustained operations **(T-1).**

Figure 4.4. AMP–1, Night/Instrument Approach.



4.4.3.3. AMP-2. Use AMP-2 to support day or night tactical airlift requirements. AMP-2 requires fewer panels or lights than AMP-1. Overt or covert lighting may be used. See **Figure 4.5** and **Figure 4.6**.

Figure 4.5. AMP-2, Day.

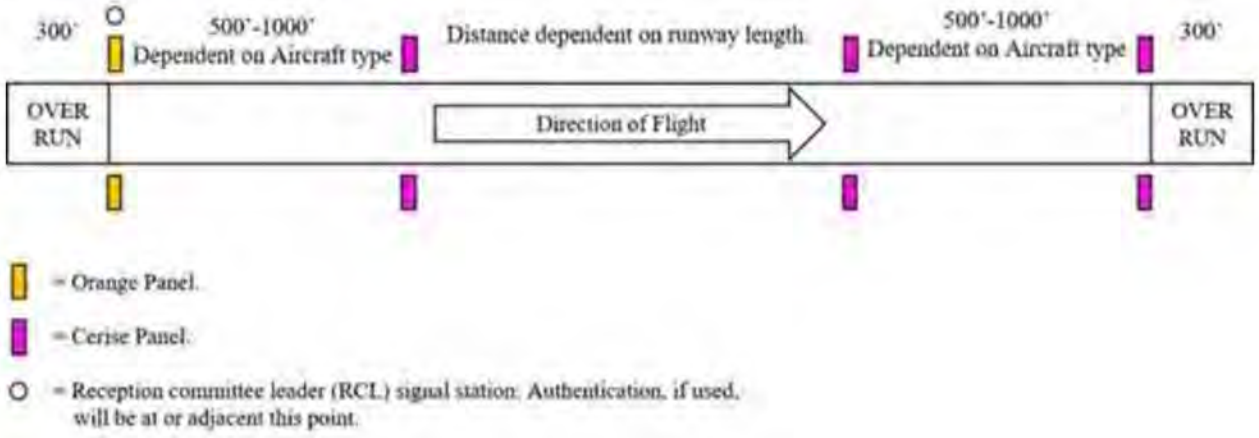
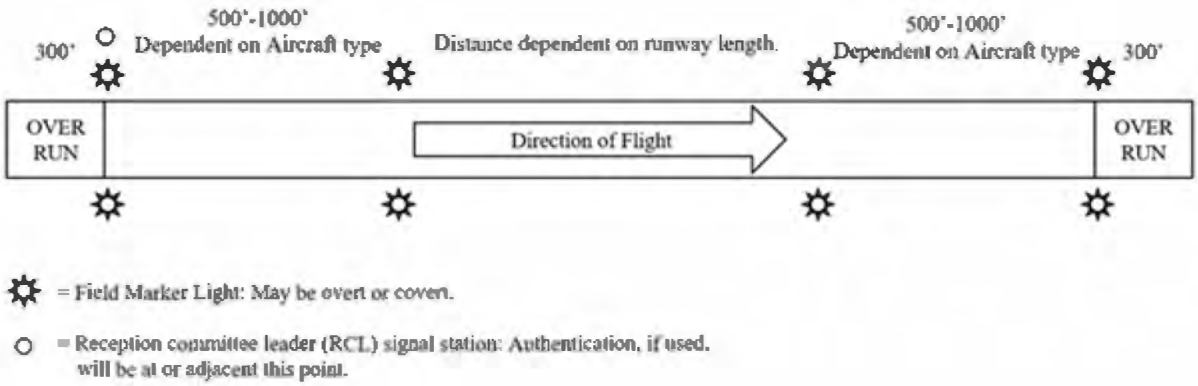


Figure 4.6. AMP-2 Night.



4.4.3.4. AMP-3. AMP-3 further reduces the number of panels/lights used to support day or night tactical airlift requirements. Use overt or covert lighting. The "Box and One" is for runway identification only and the standard box length should be 500 feet. The box length may be 500' or 1000' depending on the tactical situation and the box length may be 200' for LTFW aircraft. If the box length is not 500', it is mandatory the LZ controlling authority ensures all participating aircraft are notified of the nonstandard box length. **(T-2).** See **Figure 4.7** for day markings and **Figure 4.8** for night markings.

Figure 4.7. AMP-3, Day.

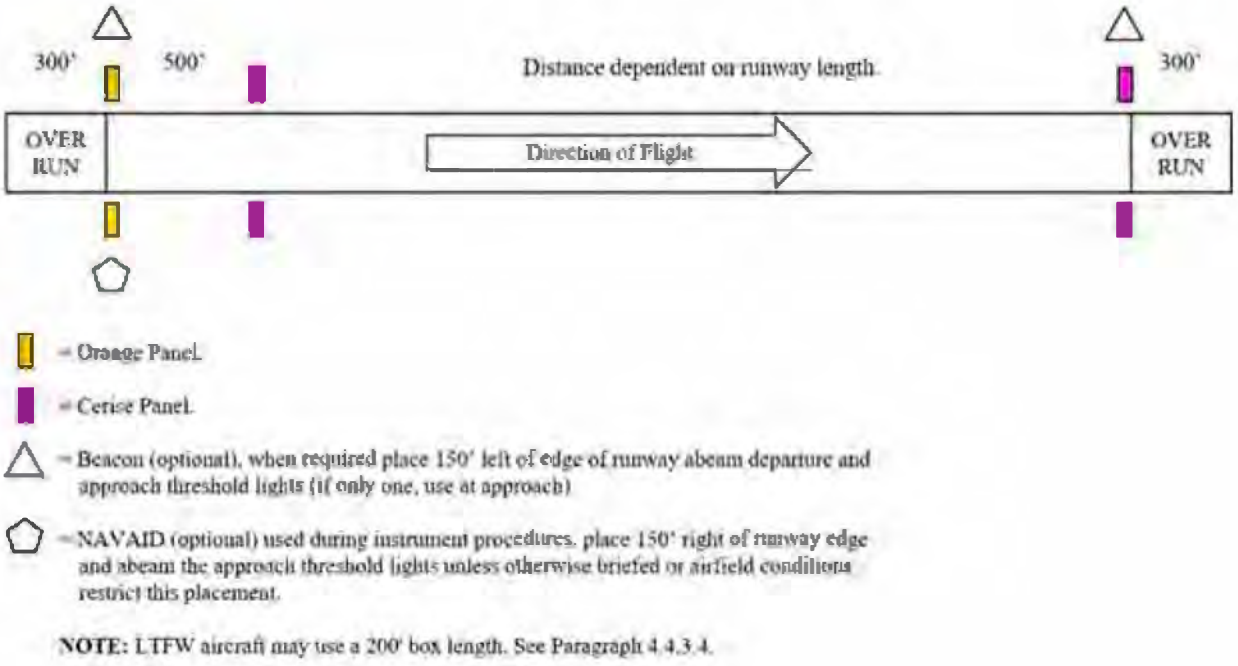
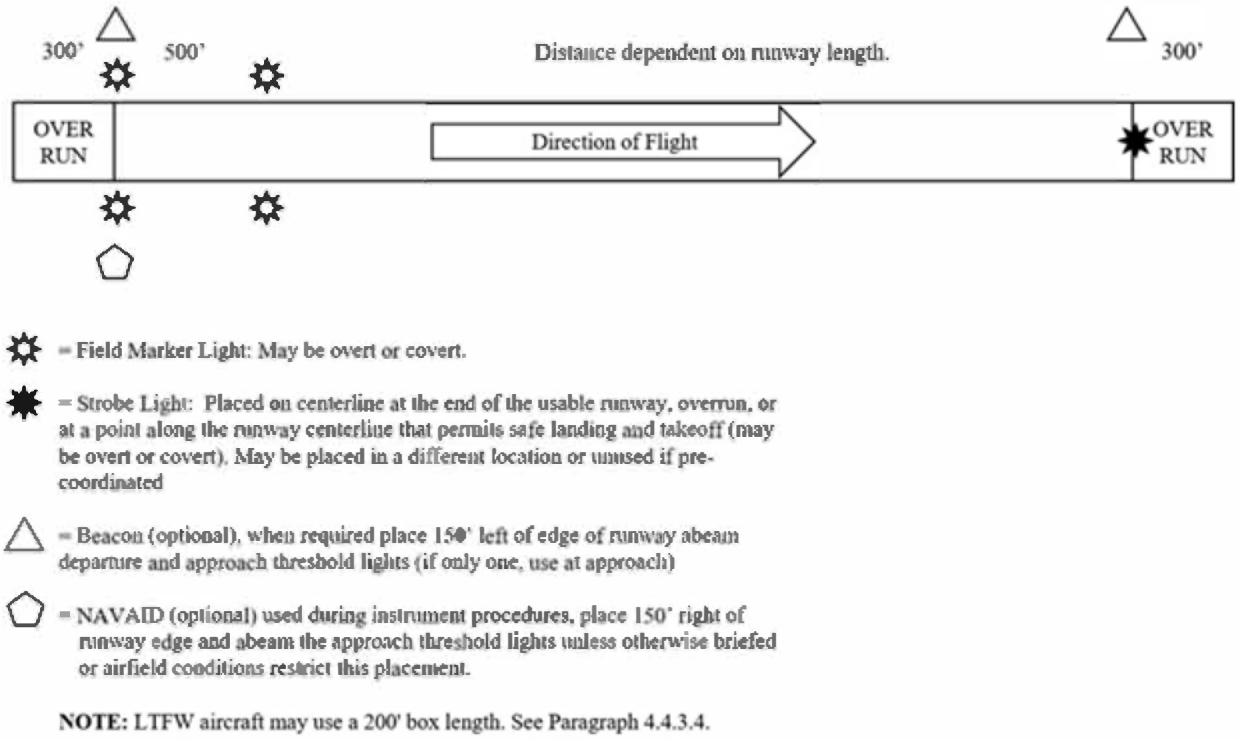


Figure 4.8. AMP-3, Night.



4.4.3.5. AMP-4. No markings are used for AMP-4. Unmarked LZs are referred to as AMP-4 or as AMP-4 operations.

4.5. Unmarked LZ. Unmarked LZs are referred to as AMP-4 or as AMP-4 operations as listed in **paragraph 4.4.3.5** Aircrew must be approved and trained by the MAJCOM prior to conducting unmarked LZ operations. **(T-2).** MAJCOMs may have different procedures for day and night operations. Night operations may be further distinguished by unaided (no NVD or onboard equipment), NVD, aircraft equipment aided and lunar illumination requirements.

4.6. LZ Communications.

4.6.1. Radio Procedures. Radio communication procedures will be in accordance with MAJCOM-approved LZSO training. **(T-2).**

4.6.2. Emergency Signals. Standard ATC light signals are normally used if radio communications are not established. Signal a go around by using either red flares, a red-light beam aimed directly at the pilot, or a radio call to the pilot. See **Table 4.3f. NOTE:** Coordinate and thoroughly brief emergency signals. **(T-2).** NVG equipped crews may be unable to discern colored lights and any light signal pointed at the aircraft may blind the aircrew.

BY ORDER OF THE
SECRETARY OF THE AIR FORCE

AIR FORCE MANUAL 11-202, VOLUME 3

10 JANUARY 2022

AIR MOBILITY COMMAND Supplement

29 JULY 2024

Flying Operations

FLIGHT OPERATIONS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing website at **www.e-Publishing.af.mil** for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: AFFSA/XOF

Certified by: AF/DA3O
(Mr. Trent Dudley)

Supersedes: AFMAN11-202V3, 10 June 2020

Pages: 425

(AMC)

OPR: AMC/A3V

Certified by: AMC/A3V
(Mr. Scott J. Lubin)

Supersedes: AFMAN11-202V3_AMCSUP, 14 June 2021

Pages: 124

This manual implements Air Force Policy Directive (AFPD) 11-2, *Aircrew Operations*, by prescribing general flight rules that govern the operation of United States Air Force (USAF) aircraft. This manual applies to individuals at all levels who operate Air Force (AF) aircraft (manned and unmanned), to include civilian aircrews, and uniformed members of the Regular Air Force, the Air Force Reserve and the Air National Guard (ANG), and pilots assigned to other services or from other nations (in accordance with applicable Memorandums of Agreement). This publication does not apply to the United States Space Force (USSF). Individual aircraft flight manuals should provide detailed instructions for specific aircraft instrumentation or characteristics. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through

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(AMC) This supplement implements and extends guidance of Air Force Manual (AFMAN) 11-202V3, *Flight Operations,* by prescribing general flight rules, lead command operational policy and standardized procedures for the Mobility Air Forces (MAF). This supplement is approved by Air Mobility Command (AMC), Air Combat Command (ACC), Air Force Reserve Command (AFRC), Air National Guard (ANG), Pacific Air Force (PACAF), United States Air Forces in Europe-Air Forces Africa (USAFE-AFAFRICA), collectively referred to as Mobility Air Forces. This publication applies to all MAF Regular Air Force, AFRC MAF units, and ANG MAF units. This publication is not applicable to United States Space Forces. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with (IAW) the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the Department of the Air Force (DAF) Form 847, *Recommendation for Change of Publication*; route DAF Form 847s from the field through appropriate functional chain of command. The authorities to waive wing and unit level requirements in this publication are identified with a tier number ("T-0, T-1, T-2, T-3") following the compliance statement. See Department of the Air Force Manual (DAFMAN) 90-161, *Publishing Processes and Procedures*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items, utilizing guidance identified in DAFMAN 90-161. See **paragraph 1.7**. This publication may be supplemented at any level, but all supplements must be routed to the OPR of this publication for coordination prior to certification and approval. This publication requires the collection and/or maintenance of information protected by the Privacy Act of 1974 authorized by 10 U.S.C. 8013, Secretary of the Air Force. The Privacy Act System of Record Notice(s) (SORN) F011 AF XO A, Aviation Resource Management System (ARMS) covers required information and is available at **http://dpclo.defense.gov/Privacy/SORNs.aspx**. The authority for maintenance of ARMS is Title 37 U.S.C. 301a (Incentive Pay), Public Law 92-204, Section 715 (Appropriations Act for 1973), Public Laws 93-570 (Appropriations Act for 1974), 93-294 (Aviation Career Incentive Act of

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SUMMARY OF CHANGES

Major changes include: (1) incorporating GM 2021-01; (2) departure procedure clarifications (**Chapter 5**); (3) IFR DER crossing restrictions in **Table 5.1** and **paragraph 5.10**; (4) FLIP Decision Tree (**Attachment 6**); (5) IFR Filing Tree (**Attachment 7**); (6) Departure Decision Tree (**Attachment 8**); and (7) changes since 10 June 2020 version are tracked in the document with a black bar in the left margin.

(AMC) This document has been rewritten to integrate into the current AFMAN 11-202V3. Major guidance changes include: Tactical/Receiver AAR maximum Flight Duty Period (FDP) (Table 3.1 Notes), added required designation of enroute alternate for unsuccessful AR, added guidance for enroute alternates with GNSS-only approaches, added guidance for use of Jeppesen® products, change to the 10-minute plot requirement, added CAT II ILS RVR guidance, added Opportune Air Refueling guidance, reorganized **Chapter 29** (separated Aircrew Member Duties into new **Chapter 30**), changed briefing requirement for Stabilized Approach Criteria.

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3.21.5. If cabin altitude exceeds 18,000 feet MSL following the unintended loss of cabin pressure, aircrew and passengers must be evaluated by a flight surgeon or other aviation medical authority prior to further flight. **(T-2)** If cabin altitude cannot be determined, use the aircraft altitude at the time of the event. Report a loss of cabin pressurization in accordance with AFMAN 91-223.

3.21.6. If any occupant exhibits decompression sickness symptoms, descend as soon as practicable and land at the nearest suitable installation where medical assistance can be obtained. Individuals suspected of decompression sickness shall be administered and remain on 100% oxygen (using tight-fitting mask or equivalent) until evaluated by an aviation medical authority. Decompression sickness may occur up to 12 hours after landing. Aircrew will not fly after a decompression sickness event without specific authorization from a flight surgeon. **(T-1)**

3.21.7. If anyone on the aircraft experiences hypoxia symptoms, descend immediately to the lowest practical altitude and land at a suitable location to obtain medical assistance. Aircrew will not fly after a hypoxia event without specific authorization from a flight surgeon. **(T-1)**

3.21.8. Without functional pressure suits, maintain a cabin altitude below FL250 and adhere to the time limits in **Table 3.3** (not applicable for U2 operations). **(T-2) Exception:** AFSOC aircraft and special operations C-17 aircrews conducting MAJCOM/A3 approved high altitude airdrop missions (above FL250). For high altitude airdrop missions, use the oxygen requirements in AFMAN 11-409, *High Altitude Airdrop Mission Support Capability Procedures*. If the aircraft lands between missions and the time on the ground equals or exceeds the time spent at or above a cabin altitude of FL210, the time of allowable duration can be reset to the maximum.

3.21.9. **(Added-AMC)** The maximum operating altitude for Emergency Passenger Oxygen System (EPOS) is 41,000 feet. Aircraft equipped with EPOS are limited to flying at FL410 or below when any occupant relies on EPOS to meet emergency oxygen requirements.

Table 3.3. Cabin Altitude Time Limits (Decompression Sickness Prevention).

Time (minutes)	Cabin Altitude (feet MSL)
0	At or Above FL 250
45	24,000 – 24,999
70	23,000 – 23,999
120	22,000 – 22,999
200	21,000 – 21,999

3.22. Aircraft Lighting. [14 CFR Part 91.209] Aircrew will operate aircraft lighting according to the following guidance or host-nation rules and theater SPINS **(T-1)**:

3.22.1. Between sunset and sunrise, turn on position lights when operating an aircraft, when towing an aircraft (unless clearly illuminated by an outside source), and when parking an aircraft in an area likely to create a hazard (unless clearly illuminated by an outside source). **(T-0) Exception:** Aircraft that do not have power available before start shall turn them on as

soon as power is available. **(T-0)** Wing commanders will establish required procedures and lighting for towing unpowered aircraft between sunset and sunrise. **(T-2)**

3.22.2. Turn on anti-collision or strobe lights prior to engine start and do not turn them off until after engine shutdown. **(T-0) Exception:** Aircraft that do not have power available before engine start shall turn anti-collision or strobe lights on as soon as power is available. **(T-2) Note:** Flashing lights may be turned off or reduced in intensity if they adversely affect the performance of duties or subject an outside observer to harmful dazzle.

3.22.3. Turn on landing lights after takeoff clearance is received and the aircraft is on the active runway (across the hold line), when commencing takeoff roll at an airport without an operating control tower, or when operating below 10,000 feet MSL and turn off after exiting the active runway. **(T-3) Exception:** PIC may turn off the landing lights whenever safety or mission requirements dictate.

3.22.4. MAJCOMs may authorize reduced or lights-out operations in restricted areas, warning areas, host-nation approved areas, or designated airfields. Designated airfields shall be documented in a letter of agreement. **(T-1)**

3.22.5. MAJCOMs may authorize varying aircraft lighting procedures for formation flights provided the light configuration provides an equivalent level of visual identification as a single aircraft.

3.23. Airfield Lighting. PICs will not conduct operations from a runway unless it is outlined with operable lighting or high-intensity runway reflective markers, unless authorized by the MAJCOM through the MDS-specific Volume 3 or other specific guidance. **(T-2) Note:** Not applicable for helicopters

3.23.1. Covert infrared runway lighting used by qualified aircrew equipped with NVDs meets the intent of lighted landing surface.

3.23.2. PICs are restricted to military airfields or civilian airports with an appropriate letter of agreement during non-contingency operations from unlighted runways, landing zones, or runways with high-intensity runway reflective markers. **(T-2) Note:** Not applicable for helicopters.

3.23.3. In Alaska, areas located north of 60° North latitude, Antarctica, and areas located south of 60° South latitude, aircraft may be operated to unlighted airports during the period of civil twilight.

3.24. Right-of-Way. PIC will take action necessary to avoid collision, regardless of who has the right-of-way. **(T-0)** The yielding aircraft will not pass over, under, abeam, or ahead of the other aircraft unless well clear. **(T-0)** [14 CFR Part 91.113].

3.24.1. Aircraft in distress have the right-of-way over all other air traffic. **(T-0)**

3.24.2. When aircraft of the same category are converging at approximately the same altitude (except head-on or approximately so), the aircraft to the other's right has the right-of-way. **(T-0)** Aircraft of different categories have the right-of-way in the following order of priority: balloons, gliders, aircraft towing or refueling other aircraft, airships, rotary- or fixed-wing aircraft. **(T-0)**

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 133RD AIRLIFT WING (AMC)
SAINT PAUL MINNESOTA

18 April 2024

MEMORANDUM FOR RECORD

FROM: 133OG/CC
133rd Operations Group
631 Spitfire Ave
Saint Paul, MN 55111-4116

SUBJECT: Letter of Agreement Airfield Marking Patterns 4 (AMP-4) Operations

References: (a) FCIF 23-05-12
(b) DAFMAN13-217
(c) AFMAN11-202V3

1. BACKGROUND: Per Flight Crew Information File (FCIF) 23-05-12; to meet AMC/CC's April 2023 Orders, Air National Guard (ANG) crews are authorized to conduct AMP-4 training. DAFMAN13-217 further references AMP-4 as an airfield with no markings/lights.

2. PURPOSE: In compliance with AFMAN11-202V3 3.23.2, this memorandum serves as the Letter of Agreement between the 133rd Operations Group and Ray S. Miller Army Airfield (KRYM) for 133rd Aircrews to accomplish proficiency takeoff and landing training to Miller Army Airfield without the use of runway or landing zone lights. When AMP-4 training is requested, Miller Army Airfield will plan for Blackout flight training, and both Overt and Covert lighting by the aircraft and will protect the airspace accordingly for blackout and covert lighting operations.

3. SCOPE: This agreement is applicable to 133rd Airlift Wing (133rd AW) and Ray S. Miller Army Airfield (KRYM).

4. CANCELLATION: This Letter of Agreement remains in effect until it is superseded or cancelled.

5. PROCEDURES:

a. Air National Guard

(1) 133rd OSS/OSK (Tactics) will include AMP-4 training dates/times in RFMSS, as a second AIRFIELD (MAAF) RFMSS RCNI entry with the EVENT NAME of AIRFIELD AMP-4 (i.e., there will be the regular AIRFIELD (MAAF) entry for the event of (Pattern Work W/CFR), Plus a 2nd AIRFIELD (MAAF) entry for the Event of (AIRFIELD AMP-4). In

addition, Tactics will include notes in ECOORD remark section referencing AMP-4 training and add a comment in the weekly ECOORD email.

(2) AMP-4 training should be scheduled at least 30 days in advance. The scheduled training period will be hard times. Covert/Blackout flight training will close the Class D airspace to all other non-participating users for the duration of the AMP-4 training. Scheduling procedure will include a notification to Little Falls (KLXL) airfield management (located 8.25 NM South of KRYM) so that an aircrew bulletin may be posted informing civilian operators of AMP-4 activity and recommended avoidance of KRYM class D airspace.

(3) No more than two aircraft from the 133rd OG will be in the KRYM traffic pattern during AMP-4 training events.

(4) 133rd OG Supervisor of Flight (SOF) will call the day of training (no later than 1 hour prior to arrival) to coordinate the extinguishing of Cantonment lighting.

(5) 133 OSS/OSK will provide a qualified Landing Zone Officer if planning to land on the assault zone.

(6) 133rd Flight Crews will revert to Overt Lighting at any time it is requested by Miller Tower or in the event of an in-flight emergency or at any time it is deemed in the best interest of safety. If the aircrew decides to change aircraft lighting to/from; Overt/Covert/Blackout, a call to Miller Tower will be made to ensure all parties are aware of the change.

(7) 133rd Flight Crews will request any **airfield** lighting changes through Miller Tower, if different from the standard AMP-4 in which all airfield lights are turned off, except for obstruction lights. Possibilities include Standard lighting and NVG lighting.

(8) 133rd Flight Crews will make position calls on the Little Falls (KLXL) airport common advisory frequency stating "Unlit C-130 aircraft conducting approaches at Ray Miller Army Airfield runway 31/13" during each approach to ensure traffic de-confliction.

b. Miller Army Airfield

(1) When AMP-4 is approved Miller Operations will publish a NOTAM closing the Class D airspace to non-participating units and a NOTAM for airfield lights out, for the scheduled duration of AMP-4 training time.

(2) Will not approve AMP-4 training during other prescheduled flight activities.

(3) Will not approve other PPR's, from non-participating users, during approved AMP-4 training periods.

(4) Upon notification from 133rd SOF/Tactics, Miller Operations will ensure cantonment lighting is turned off IAW published NOTAM times.

(5) Miller Tower will change airfield lighting as requested to fulfill 133rd AW training requirements. Airfield lights to be turned off by Miller Tower for AMP-4 training include runway, taxiway, tactical, rotating beacon, windsock and lighted signage.

(6) In the event of an emergency, all airfield lighting will be brought back up to standard lighting.

AMENT.PETER.JOHN.1101766418 Digitally signed by AMENT.PETER.JOHN.1101766418 Date: 2024.04.30 10:26:10 -05'00'

PETER J. AMENT, Colonel, MNANG
Commander

1st Ind, KRYM/AFM

MEMORANDUM FOR RECORD

FOSTER.NATHAN.ALLEN.1136790753 Digitally signed by FOSTER.NATHAN.ALLEN.1136790753 Date: 2024.04.30 11:43:32 -05'00'

NATHAN A. FOSTER, GS-13, MNARNG
Airfield Manger

DEPARTMENT OF THE AIR FORCE PUBLICATION COMPLIANCE ITEM WAIVER REQUEST/APPROVAL

SECTION I: REQUESTING UNIT ACTIONS

1. COMMANDER OR CIVILIAN LEADER OF UNIT REQUESTING WAIVER:	2. RANK/GRADE:	3. UNIT:	4. DATE:
PETER J. AMENT	Col/O-6	133 OG	13-Mar-24

5. TIER WAIVER NUMBER/AUTHORITY: ***(See DAFMAN 90-161, Publishing Processes and Procedures, for more detailed guidance.)***

- ☐ **NONE.** Non-Tiered Requirements are processed and approved as directed in the specific publication.
- ☐ **TIER 0:** Requirement external to DAF; Requests for waivers are sent through command to HAF functional OPR for submission consideration to non-DAF authority.
- ☒ **TIER 1:** MAJCOM or FLDCOM/CC or equivalent (may delegate no lower than MAJCOM/FLDCOM or equivalent Director) with coordination of the publication's Approving Official.
- ☐ **TIER 2:** MAJCOM or FLDCOM/CC or equivalent (delegable no lower than the first General Officer in the chain of command or personnel meeting T-1 delegation authorization).
- ☐ **TIER 3:** Wing/Delta/Garrison/CC, Equivalent or higher echelon if applicable (delegable no lower than Squadron/Unit/CC or equivalent).

6. PUBLICATION NUMBER AND TITLE:	7. DATE PUBLISHED:
AFMAN11-202V3, AFMAN11-202V3_AMC SUP	10-Jan-22

8. REQUIREMENT/COMPLIANCE ITEM: *(Identify the specific paragraph number and text for which the commander/director is requesting a waiver)*

AFMAN11-202V3 Para 3.22.4 MAJCOMs may authorize reduced or lights-out operations in restricted areas, warning areas, host-nation approved areas, or designated airfields. Designated airfields shall be documented in a letter of agreement. (T-1)
AFMAN11-202V3_AMC SUP Para 3.22.4 MAJCOMs may authorize reduced or lights-out operations in restricted areas, warning areas, host-nation approved areas, or designated airfields. Designated airfields shall be documented in a letter of agreement. (T-1)

9. RATIONALE: *Explain how complying with the requirement/compliance item impacts mission accomplishment; cost of compliance creates unacceptable risk and/or cost of compliance outweighs benefit and/or personnel cannot comply due to lack of resources.*

Mobility Air Force units have been directed by AMC/CC to gain certification and proficiency in AMP-4 operations as soon as possible in preparation for near-peer adversary conflict. The 133OG has initiated AMP-4 training at its primary training aux airfield, KRYM, conducting AMP-4 operations under overt aircraft lighting. Engaging covert aircraft lighting (as recommended per HQ AMC C-130 AMP-4 Training Syllabus 12 Dec 2022 v2 para. 2.a.) causes aircraft position lights to extinguish due to aircraft wiring. MAJCOM approval is required to conduct AMP-4 operations using covert lighting as KRYM does not fall in an approved MOA, restricted area, or warning area for lights out operations. KRYM airfield management has agreed to sign the applicable letter of agreement once MAJCOM approval is granted.

10. TIME PERIOD OR CIRCUMSTANCES FOR WHICH THE WAIVER WILL BE REQUIRED:

This request is to waive the above requirements indefinitely, as AMP-4 landings are an annual training requirement and quarterly training currency item for all C130H proficiency levels IAW AFMAN11-2C-130HV1.

11. RISK MITIGATION MEASURE:

IAW AFMAN11-202V3 Para 3.22.4 & AFMAN11-202V3_AMC SUP Para 3.22.4, a Letter of Agreement will be signed by 133OG and KRYM ensuring mutually agreed upon safety measures are defined and followed when executing AMP-4 landings using covert aircraft lighting.
IAW the attached C-130 Black out_Covert lighting operations risk assessment worksheet, the following safety measures will be followed and annotated in the letter of agreement:
A NOTAM will be published closing Class D Airspace to non-participating aircraft due to aircraft black-out / covert lighting during scheduled times, and KRYM ATC will enforce that restriction by denying entry to all non-participating aircraft. KRYM ATC will have 2 sets of Night Vision Devices (NVDs) operational & ready for use in the ATC Tower to maintain visual contact with covert-lit aircraft as KRYM ATC is not radar-equipped. 133OG crews and/or KRYM ATC will stop AMP-4 training activities if a safety of life, limb or eyesight concern is observed.
Additionally, AMP-4 training operations will only be conducted under VMC conditions.

12. IMPACT OF DISAPPROVAL:

If not approved, 133OG crews will not be able to obtain/maintain proficiency in AMP-4 landings using covert aircraft lighting as directed by the HQ AMC C-130 AMP-4 Training Syllabus 12 Dec 2022 v2 para. 2.a. Failure to obtain/maintain proficiency in this mission set per the guidance of the Training Syllabus makes the 133OG unable to meet AMC/CC directives.

SECTION II: COORDINATION ACTIONS. Tier 1 waiver requests must have HAF approving official's coordination prior to MAJCOM/FLDCOM Command approval.

	ORG/OFFICE	ACTION	NAME, GRADE/RANK	SIGNATURE	DATE
	133 OG/OGV	Concur	Dana M. Post, O-5	POST.DANA.MICHAEL.1244116074 Digitally signed by POST.DANA.MICHAEL.1244116074 Date: 2024.03.13 13:01:53 -05'00'	13-Mar-24
-	133 OG/CC	Concur	Peter J. Ament, O-6	AMENT.PETER.JOHN.1101766418 Digitally signed by AMENT.PETER.JOHN.1101766418 Date: 2024.03.19 22:28:26 -05'00'	19-Mar-24
-	133 AW/CC	Concur	Jesse R. Carlson, O-6	CARLSON.JESSE.RYAN.1136259934 Digitally signed by CARLSON.JESSE.RYAN.1136259934 Date: 2024.04.02 12:30:34 -05'00'	02-Apr-24
-	NGB A3/10M	Concur	Donald W Davenport, O-6	DAVENPORT.DONALD.WESLEY.1252556423 Digitally signed by DAVENPORT.DONALD.WESLEY.1252556423 Date: 2024.04.04 15:48:41 -04'00'	04-Apr-24

AIR FORCE PUBLICATION COMPLIANCE ITEM WAIVER REQUEST/APPROVAL *(Continued)*

SECTION III: APPROVAL AUTHORITY AND EXPIRATION

☒ WAIVER APPROVED - PERMANENT *(A permanent waiver must be renewed within 90 days of the approving official's change of command)*

☐ WAIVER APPROVED - TEMPORARY EXPIRATION DATE:

☐ WAIVER DISAPPROVED

13. WAIVER MODIFICATION:

NAME, GRADE/RANK, ORG/OFFICE SYMBOL, TITLE OF APPROVING OFFICIAL	SIGNATURE	DATE
GARY R. CHARLTON, O7/ Brig Gen, NGB A3/10 Director	CHARLTON.GARY.ROBERT.II.1023538462 Digitally signed by CHARLTON.GARY.ROBERT.II.10235384 62 Date: 2024.04.12 17:15:01 -04'00'	12-Apr-24

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION AND EXECUTION DATE(S)	2. DATE PREPARED
C-130 Airfield Marking Pattern 4 (Blackout / Covert lighting) flight training at Ray S. Miller Army Airfield (KRYM).	20240212

3. PREPARED BY

a. NAME *(Last, First, Middle Initial)*	b. RANK/GRADE	c. DUTY TITLE/POSITION
SLAVIN, CHRISTOPHER, A.	CIV / GS-12	AIRFIELD SAFETY OFFICER

d. UNIT	e. WORK EMAIL	f. TELEPHONE *(DSN, Commercial (Include Area Code))*
MAAF	CHRISTOPHER.A.SLAVIN.CIV@ARMY.MIL	871-2787, (320) 616-2787

g. UIC/CIN *(as required)*	h. TRAINING SUPPORT/LESSON PLAN OR OPORD *(as required)*	i. SIGNATURE OF PREPARER
		SLAVIN.CHRISTOPHER.ADAM.1249091665 Digitally signed by SLAVIN.CHRISTOPHER.ADAM.1249091665 Date: 2024.02.12 08:46:16 -06'00'

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & makes decisions (4) Implement controls (5) Supervise and evaluate *(Step numbers not equal to numbered items on form)*

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -	Planning	Mishap due to not understanding Airfield Marking Pattern 4 (AMP-4) operations & Airfield requirement for AMP-4 training.	M	Develop an AMP-4 training MFR/LOA/MOA. Have appropriate signature authorities sign AMP-4 training MFR/ LOA/MOA. Keep AMP-4 MFR/LOA/ MOA on file at Airwing and MAAF.	How: Develop, sign and have on file an AMP-4 training MFR/LOA/MOA. Who: Airfield Manager, Air Traffic and Airspace Officer & Operations Group Commander.	L
+ -	Pre-execution	Mid-Air Collision between blacked out / covert lighting aircraft and non-particapating aircraft in KRYM Airspace.	H	Class D Airspace will be open during blackout / covert lighting operations. Place NOTAM if Class D will be open during hours outside of published hours. MN AASFs will be notified of AMP-4 training and restrictions.	How: KRYM Class D open, NOTAM placed (outside published hours), inform MNARNG AASFs. Who: ATC Tower Chief, Airfield Ops Staff, & Airfield Safety Officer.	M
+ -		Mid-Air Collision between blacked out / covert lighting aircraft and non-particapating aircraft in KRYM Airspace.	H	Place NOTAM closing Class D Airspace to non-participating aircraft due to aircraft black-out / covert lighting during scheduled times.	How: Place Aerodrome CLSD to non-participating aircraft black-out operations NOTAM. Who: Airfield Ops Staff, & Airfield Safety Officer.	M

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -	Execution	Mid-Air Collision between blacked out / covert lighting aircraft and non-particapating aircraft in KRYM Airspace.	H	Air Traffic Controllers (ATC) deny entry to all non-participating aircraft in Class D Airspace.	How: ATC deny entry of non-participating aircraft in Class D Airspace via radio. Who: Air Traffic Controllers.	M
+ -		Aircraft collision with wildlife or FOD on Airfield surfaces.	H	Airfield Operations will conduct a runway check prior to AMP-4 training and subsequent runway checks as necessary.	How: MAAF vehicle will drive on airfield surfaces to confirm no deer and chase off as required. Who: Airfield Operations & Airfield POL.	M
+ -		ATC ability to sequence and provide adequate spacing to unlit, minimally lit or covertly lit aircraft properly.	M	ATC will have 2 sets of Night Vision Devices (NVDs) operational & ready for use in the ATC Tower.	How: Have 2 sets of operational NVDs in ATCT. Who: Air Traffic Controllers.	M
+ -		Aircrew Night Vision Goggles (NVGs) being washed out by airfield lighting.	M	ATC will place Airfield lighting controls to OFF. Lights will not be in pilot controlled mode during AMP-4 training.	How: Place lighting controls in ATCT OFF. Who: Air Traffic Controllers.	L
+ -		Aircrew Night Vision Goggles (NVGs) being washed out by airfield lighting.	M	In the event of an emergency ATC will notify aircraft and turn on airfield lighting.	How: Broadcast on Tower frequency of lights being turned on and turn lights on. Who: Airfield Ops Staff.	L

	4. SUBTASK/SUBSTEP OF MISSION/TASK	5. HAZARD	6. INITIAL RISK LEVEL	7. CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT	9. RESIDUAL RISK LEVEL
+ -		Aircrew Night Vision Goggles (NVGs) being washed out by cantonment lighting.	M	MAAF staff will turn off cantonment lighting in and around Area 8.	How: Turn Area 8 and adjacent lighting off on Camp Ripley cantonment. Who: Airfield Ops Staff.	L
+ -		Aerodrome Beacon NAVAID not lit during AMP-4 training.	L	Place Aerodrome Beacon Unserviceable NOTAM during scheduled AMP-4 training.	How: Place Aerodrome Beacon Unserviceable NOTAM. Who: Airfield Ops Staff, & Airfield Safety Officer.	L
+ -		AMP-4 training aircraft and other aircraft (rotary wing and/or fixed wing) operating simultaneously with KRYM lighting OFF after sunset and before sunrise.	M	Aircraft are required to have FAA position & anti-collision lights ON. ATC will ensure all Aircrews are operating with NVGs prior to turning off airfield lighting. Lighting turned on if any aircrew is unaided.	How: Turn lights off by customer request after NVGs are verified in use by all aircraft. Who: Air Traffic Controllers & Airfield Ops Staff.	L

10. OVERALL RESIDUAL RISK LEVEL *(All controls implemented):*

☐ **EXTREMELY HIGH** ☐ **HIGH** ☒ **MEDIUM** ☐ **LOW**

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

Miller Army Airfield employees will stop AMP-4 training activities if a safety of life, limb or eyesight concern is observed. MAAF employees will communicate up the chain of command any concerns with AMP-4 training. These concerns will be elevated to the Ray S Miller Airfield Manager & Air Traffic and Airspace Officer for review and to inform Camp Ripley Operations and 133rd Air Wing / 109th Airlift Squadron.

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK ☐ **APPROVE** ☐ **DISAPPROVE**

a. NAME *(Last, First, Middle Initial)*	b. RANK/GRADE	c. DUTY TITLE/POSITION	d. SIGNATURE OF APPROVAL AUTHORITY
Fink, Troy, J.	COL / O-6	CRTC Commander	FINK.TROY.JAMES.1137280015 Digitally signed by FINK.TROY.JAMES.1137280015 Date: 2024.02.14 14:29:48 -06'00'

e. ADDITIONAL GUIDANCE:

RISK ASSESSMENT MATRIX		Probability *(Expected frequency)*				
		Frequent: Continuous, regular, or inevitable occurrences	**Likely:** Several or numerous occurrences	**Occasional:** Sporadic or intermittent occurrences	**Seldom:** Infrequent occurrences	**Unlikely:** Possible occurrences but improbable
Severity *(expected consequence)*		**A**	**B**	**C**	**D**	**E**
Catastrophic: *Mission failure, unit readiness eliminated; death, unacceptable loss or damage*	**I**	**EH**	**EH**	**H**	**H**	**M**
Critical: *Significantly degraded unit readiness or mission capability; severe injury, illness, loss or damage*	**II**	**EH**	**H**	**H**	**M**	**L**
Moderate: *Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage*	**III**	**H**	**M**	**M**	**L**	**L**
Negligible: *Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage*	**IV**	**M**	**L**	**L**	**L**	**L**

LEGEND: **EH -** Extremely High Risk **H -** High Risk **M -** Medium Risk **L -** Low Risk

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

a. DATE	b. LAST NAME	c. RANK/GRADE	d. DUTY TITLE/POSITION	e. SIGNATURE OF REVIEWER
20240215	Brower	Lt Col/O-5	109AS/CC	BROWER.DANIEL.JOHN.1136428612 Digitally signed by BROWER.DANIEL.JOHN.1136428612 Date: 2024.02.15 15:47:29 -06'00'
20240220	Ament	Col/O-6	133OG/CC	AMENT.PETER.JOHN.1101766418 Digitally signed by AMENT.PETER.JOHN.1101766418 Date: 2024.02.20 15:20:46 -06'00'

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"

1. Mission/Task Description and Execution Date(s): Briefly describe the overall Mission or Task and execution date(s) for which the deliberate risk assessment is being conducted.

2. Date Prepared: Enter date form was prepared.

3. Prepared By: Information provided by the individual conducting the deliberate risk assessment for the operation or training.
Legend: UIC = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial

4. Subtask/SubStep of Mission/Task: Briefly describe all subtasks or substeps that warrant risk management.

5. Hazard: Specify hazards related to the subtask in block 4.

6. Initial Risk Level: Determine initial risk level. Using the risk assessment matrix (preceding block 13), determine level of risk for each hazard specified. Use probability and severity to determine risk level; enter risk level into column.

7. Control: Enter risk mitigation resources/controls identified to abate or reduce risk relevant to the hazard identified in block 5.

8. How to Implement / Who Will Implement: Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual, unit or office that has primary responsibility for control implementation.

9. Residual Risk Level: After controls are implemented, determine resulting probability, severity, and residual risk level.

10. Overall Risk After Controls are Implemented: Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).

11. Supervision Plan and Recommended Course of Action: Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment.

12. Approval/Disapproval of Mission/Task: Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan.

13. Risk Assessment Review: Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations.

14. Feedback and Lessons Learned: Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected.

15. Additional Comments or Remarks: Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management.

Additional Guidance: Blocks 4-9 may be reproduced as necessary for processing of all subtasks/substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.