



Supplement 1

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Flying Operations

F-15 OPERATIONS PROCEDURES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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AFI 11-2F-15, Volume 3, 21 July 2004, is supplemented as follows:

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SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

This revision updates guidance on rolling takeoffs (paragraphs 3.7.6 and 3.8.4), G-awareness exercises (paragraph 3.15.4), touch-and-go landings (paragraph 3.26.1), and wind and sea state restrictions (paragraph 3.35 [Added][AETC]). It incorporates guidance on formation visual meteorological conditions (VMC) drag procedures (paragraph 3.30.3 [Added][AETC]), and NORAD visual identification (VID) procedures (paragraph 5.6 [Added][AETC]).

3.7.3. Aircraft will take off toward a compatible arresting system when the minimum go or continuation speed exceeds maximum abort speed.

3.7.6. Pilots may perform rolling takeoffs if approved by the OG/CC.

3.7.9. (Added)(AETC) For all takeoffs and landings, use crosswind and runway condition reading limits from the aircraft technical order (TO) or aircraft-specific guidance, whichever is more restrictive.

3.8.4. Rolling formation takeoffs are not authorized.

3.15.4. A G-awareness exercise will be accomplished day or night in visual meteorological conditions (VMC). This requirement is not affected by the use of night vision goggles, but aircrews without night vision goggles must have enough visual cues to perform this maneuver. If visibility or discernible horizon is inadequate to fly this maneuver visually, aircrews will reduce mission tasking to limit their maneuvering to 5 Gs.

3.15.4.3. (Added)(AETC) Flights conducting operations within US sovereign airspace (including Alaska, Hawaii, and Guam) will ensure the airspace intended for conducting the G-awareness exercise is free from potential traffic conflicts. Flights will use air traffic control (ATC) services to the maximum extent practical to ensure the airspace is clear. The G-awareness exercise will be conducted in the following airspace with preference to the order listed:

3.15.4.3.1. (Added)(AETC) Special use airspace (which includes restricted or warning areas, ATC assigned airspace (ATCAA), military operating areas (MOA), and MAJCOM-approved large-scale exercise or special missions areas).

3.15.4.3.2. (Added)(AETC) Above 10,000 feet mean sea level (MSL) outside of special use airspace.

3.15.4.3.3. (Added)(AETC) Inside the confines of military training routes or low-level training zones.

3.15.4.3.4. (Added)(AETC) Below 10,000 feet MSL outside of special use airspace.

3.15.4.4. (Added)(AETC) Do not use G-awareness turns for systems checks or other items that detract from the intended purpose.

3.18.10. Minimum altitude is 500 feet above ground level (AGL) for AETC F-15A, B, C, and D operations.

3.20.6. For night operations, the destination (other than home station) and alternate (if required) must have an operational straight-in approach with glidepath guidance. Visual descent path indicator or precision guidance systems constitute acceptable glidepath guidance. Aircrews may perform approaches at facilities with no glidepath guidance if they descend no lower than the published minimum descent altitude.

3.23.4.6. (Added)(AETC) Aircraft landing at preplanned destinations or alternates with less than 8,000 feet of runway length and without a compatible departure end arresting gear require specific approval by the OG/CC.

3.26.1. Touch-and-go landings are authorized for continuation and formal syllabus training. Touch-and-go landings will only be performed in an F-15B or D model aircraft with a current rear cockpit instructor pilot (IP) on board or a rear cockpit IP regaining currency with a basic mission capable or combat mission ready pilot current and qualified in landing in the front cockpit.

3.30.3. (Added)(AETC) The formation VMC drag maneuver may be used to establish spacing for single-ship landings when conditions do not permit a formation landing. Formation VMC drag procedures should not be confused with radar trail recoveries. Units will review local procedures to ensure compliance with the following guidance for formation VMC drag: (**NOTE:** Before using these

procedures in flight, the flight briefing must include the information in paragraphs 3.30.3.3 [Added][AETC], 3.30.3.4 [Added][AETC], and 3.30.3.5 [Added][AETC] and reference the specific traffic pattern or instrument approach procedure to be flown.)

3.30.3.1. (Added)(AETC) The weather required is 1,500-foot ceiling and 3 nautical miles (nm) visibility. All aircraft will maintain VMC from the drag point to landing.

3.30.3.2. (Added)(AETC) Prior to directing the formation VMC drag under instrument flight rules (IFR), lead will coordinate with the appropriate ATC agency for nonstandard formation during the remainder of the approach.

3.30.3.3. (Added)(AETC) For separation maneuvers, the wingmen may use briefed power settings and configurations (speed brake, gear, and flaps) to establish and maintain spacing. The wingmen will not fly below final approach speed, and s-turns will not be used to gain or maintain separation while on final.

3.30.3.4. (Added)(AETC) The minimum spacing is 3,000 feet or as briefed.

3.30.3.5. (Added)(AETC) The latest drag point must allow adequate time for the wingmen to establish required separation and then for lead to slow to final approach speed not later than 3 nm from the runway. On instrument final approaches, the drag is normally accomplished so as to establish separation prior to the final approach fix or glideslope intercept.

3.30.3.6. (Added)(AETC) Any time the spacing is in question, the wingman will go-around or execute the missed approach, notify ATC, and comply with local procedures.

3.35. (Added)(AETC) Wind and Sea State Restrictions. Units will restrict their flying operations when high winds or sea states would be hazardous to aircrew members in ejection situations. Flights are not permitted over land when steady state surface winds (forecast or actual) in training or operating areas exceed 35 knots. Over-water flights will not be permitted when forecast or actual wave heights exceed 10 feet or surface winds exceed 25 knots in training or operating areas. This is not intended to restrict operations when only a small portion of the route or area is affected. The OG/CC is the waiver authority.

4.10. (Added)(AETC) Pilot Weather Categories (PWC):

4.10.1. (Added)(AETC) PWCs are designed to reduce the exposure of pilots with limited experience to the risks inherent during periods of low ceiling and visibility.

4.10.2. (Added)(AETC) Table 4.1 (Added)(AETC) specifies PWC minimums. Before assigning a lower weather category, a PWC 1 instructor must evaluate the pilot's instrument proficiency. When calculating total time for the purpose of PWC, do not include student, undergraduate flying training, or "other" flight time. F-15 hours include all series or mission types.

Table 4.1. (Added)(AETC) Pilot Weather Categories (PWC) for F-15 Aircrews.

I T E M	A	B	C
	PWC	Minimum Flying Hour Criteria	Takeoff and Approach Ceiling/Visibility Minimums
1	1	150 rated hours primary flight time in assigned aircraft and 600 hours total rated time or 250 rated hours in the assigned aircraft and 450 hours total rated time.	Suitable published minimums or 300 feet/1 mile (runway visual range 5,000 feet), whichever is greater.
2	2	A graduate of follow-on training who does not qualify for PWC 1.	Suitable published minimums or 500 feet/1 1/2 miles, whichever is greater.
3	3	A student enrolled in a formal follow-on training course after successful completion of a formal instrument evaluation in the assigned aircraft.	Suitable published minimums or 700 feet/2 miles, whichever is greater.

4.10.3. (Added)(AETC) Assignment of PWC 1 status is dependent on the pilot's demonstrated knowledge and performance in flight under PWC 2 operations and in aircrew training devices with low-visibility capability. The commander of the flying squadron the pilot is assigned or attached to will certify the pilot's assignment to PWC 1. PWC certification documentation will be filed in the pilot's flight training folder.

4.10.4. (Added)(AETC) PWC 1 is the minimum for normal training or support missions. When overriding mission requirements dictate, OG/CCs may individually authorize highly experienced pilots to use published approach minimums. PWC 1 minimums apply to all PWC 2 pilots for approaches at the home field.

4.10.5. (Added)(AETC) If an IP is on board, aircrews may use the IP's PWC.

4.10.6. (Added)(AETC) If a pilot is noncurrent in instrument approaches, PWC minimums will be increased by one category. A pilot may regain currency with an IP in the aircraft or in a chase aircraft.

4.10.7. (Added)(AETC) For formation approaches, the pilot with the most restrictive PWC minimums determines the flight's category.

4.10.8. (Added)(AETC) Use the approach-end runway visual range to determine takeoff and landing criteria.

4.10.9. (Added)(AETC) Units may place qualified pilots on air defense alert regardless of their PWC. When existing or forecast weather is below PWC minimums, the pilot will be placed on mandatory alert status.

4.10.10. (Added)(AETC) A squadron commander may assign student pilots previously qualified in the F-15 to PWC 2, depending on their experience level.

4.11. (Added)(AETC) Instrument Flight Rules (IFR). The following requirements apply to IFR:

4.11.1. (Added)(AETC) For local flying operations, aircrews do not have to designate an alternate airfield if all of the following conditions exist (per FAA Exemption No. 7389 and AFFSA/AETC Waiver No. 3/20002 to AFI 11-202, Volume 3, *General Flight Rules*):

4.11.1.1. (Added)(AETC) Departure and destination airfields are the same.

4.11.1.2. (Added)(AETC) An IP or examiner pilot is a crewmember.

4.11.1.3. (Added)(AETC) Ceiling and visibility are reported and forecasted to remain above 1,500 ft and 3 miles, respectively, for estimated time of arrival (ETA) plus 2 hours.

4.11.2. (Added)(AETC) Takeoff minimums (except active air defense missions) are specified in Table 4.1 (Added)(AETC). Base the decision to launch a local sortie on the existing weather and forecast for planned landing plus 1 hour. Base the decision to launch nonlocal sorties on the existing weather at takeoff time.

4.11.3. (Added)(AETC) Do not file to a destination unless the ceiling and visibility for the ETA, plus or minus 1 hour, is at or above the appropriate PWC or suitable published minimums, whichever is greater. See Table 4.1 (Added)(AETC).

4.11.4. (Added)(AETC) Weather requirements for an alternate requiring radar on the only suitable approach are the same as for an alternate without a published approach procedure.

4.11.5. (Added)(AETC) Do not commence a penetration, en route descent, or approach unless existing ceiling and visibility meet the requirements of Table 4.1 (Added)(AETC). During actual instrument meteorological conditions, a precision approach monitored by surveillance radar is the preferred approach. This does not prevent instrument practice for other types of approaches if the ceiling and visibility are at or above minimums for the approach being flown.

4.11.6. (Added)(AETC) After commencing a penetration or approach and if weather is reported below the required PWC or published minimums (ceiling or visibility), the pilot may continue the approach to the PWC or published minimums, whichever is higher. The PWC decision height or minimum descent altitude will be determined by reference to the touch-down-zone elevation (TDZE) for straight-in approaches and field elevation for circling approaches. The pilot will use field elevation if TDZE is unavailable. He or she may descend below the decision height or minimum descent altitude if (1) the aircraft is in a position to make a normal approach to the runway of intended landing, and (2) he or she can clearly see the approach threshold of the runway, approach lights, or other markings identifiable with the approach end of the runway. In all cases, the pilot will comply with the last clearance received until obtaining a revised clearance.

CAUTION: The use of PWC minimums on a precision approach may require a pilot to execute a missed approach prior to the published decision height. In these instances, upon reaching PWC minimums and making the decision not to continue the approach, the pilot should start a climb immediately while proceeding to the nonprecision missed approach point (MAP). On reaching the nonprecision MAP, he or she should continue with the published missed approach procedure.

4.11.7. (Added)(AETC) For remote or island destinations, compute fuel requirements to include fuel for 30 minutes holding at the destination fix.

5.3.1. With any fuel remaining in external wing tanks, minimum airspeed for F-15A, B, C, and D air combat training (ACBT) is 300 KCAS. This restriction does not apply to nonmaneuvering intercepts, holding, or max range descents.

5.6. (Added)(AETC) NORAD Visual Identification (VID) Procedures. Turn on the heads-up display (HUD) camera or VTR during active air defense visual identification passes no later than 1 nm in the target's stern and leave it on until after completing the breakaway maneuver.

8.2. (Added)(AETC) IMT Adopted. AF IMT 847, **Recommendation for Change of Publication.**

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFMAN 37-123, *Management of Records*

Air Force Records Disposition Schedule (RDS)

Abbreviations and Acronyms

ETA—estimated time of arrival

MAP—missed approach point

OG/CC—operations group commander

PWC—pilot weather category

TDZE—touch-down-zone elevation

TO—technical order

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