

**BY ORDER OF THE COMMANDER
BEALE AIR FORCE BASE**

**AIR FORCE INSTRUCTION 11-2T-38,
VOLUME 3**



1 DECEMBER 2023

Flying Operations

T-38 OPERATIONS PROCEDURES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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RELEASABILITY: There are no releasability restrictions on this publication.

OPR: 9 OG/OGV

Certified by: 9 OG/CC
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Supersedes: AFI11-2T-38V3_BEALEAFBSUP 10
February 2017

Pages: 10

This publication implements and extends the guidance of Air Force Manual (AFMAN) 11-2T-38, Volume 3, *T-38 Operations Procedures*. This supplement establishes Beale AFB standard procedures applicable to 9 RW assigned and attached aircrew operating Air Force T-38 aircraft; it applies to all civilian employees and uniformed members of the Regular Air Force, the Air Force Reserve, and the Air National Guard flying the T-38. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-322, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). The 9 OG/CC maintains waiver authority for this supplement. Refer recommended changes and questions about this publication to 9 OG/OGV using Air Force (AF) Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional's chain of command.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed.

Major changes include: aligned local guidance to comply with parent regulation formatting; eliminated redundant guidance that is established in other regulations or syllabus guidance; updated Departure Decision Tree & Go/No-Go Matrix; removed local LLANV minimum altitude and weather restrictions; clarifies Touch and Go Landings are permitted; clarifies guidance on

simulated single engine scenarios; removes off-station training (OST) guidance that is covered in local squadron standards and policy.

1.1.1. (Added) This instruction outlines procedures pertinent to the operation of 9th Reconnaissance Wing (9 RW) U-2 Companion Trainer Program (CTP) T-38A aircraft assigned to Beale Air Force Base (BAFB).

2.2.2.1. **(Added)** Pilots may utilize either the approved T-38 Takeoff and Landing Data (TOLD) iOS application or the P14-02 T-38A/B SPO-Approved Excel TOLD Calculator for TOLD calculations.

2.2.2.2. **(Added)** The minimum runway length required for T-38 operations is 8,000 feet. 9 OG/CC or designated representative may approve operations on runways shorter than 8,000 feet provided parent regulation guidance is met. When the published runway length is greater than or equal to 8,000 feet, but the published declared distance Landing Distance Available (LDA) is less than 8,000 feet, SQ/CC approval is required to land on that runway.

2.2.6. **(Added) Pilot In Command** . The PIC will be the highest qualified and current pilot in the aircraft. If both pilots on board have the same qualification, the senior ranking pilot will be PIC, unless non-current or unqualified in a position (e.g. FP in RCP, non-current IP in RCP). When both pilots are equal in qualification and rank, PIC defaults to the front cockpit. PIC will be designated on the sign out log AF Form 4327 with a “++” for Flight Lead/PIC, “+” for Deputy Flight Lead/PIC, or “*” for PICs not in a formation. It is the PIC’s responsibility to ensure the proper designation on the AF Form 4327.

2.2.6.1. **(Added)** Non-current or non-qualified pilots may sandbag in the back seat of a T-38 flown by a current and qualified FP, but may not fly the aircraft. IPs may allow non-current or non-qualified pilots to control the aircraft except in critical phases of flight as defined in DAFMAN 11-401 *Aviation Management*.

2.2.7. (Added) Aircrew Flight Equipment (AFE).

2.2.7. 1 **(Added)** G-Suits are required for all sorties. **Exception:** Pilots may elect to not wear a G-Suit on sorties planned to not exceed 2 Gs as specified in AFMAN 11-301V2, *Management and Configuration Requirements for Aircrew Flight Equipment (AFE)*.

2.2.7.2. **(Added)** Pilots will wear an AFE issued life preserver unit (LPU) on all overwater flights when not within power-off gliding distance of land.

2.2.7.3. **(Added) Heavy Rain.** In the event of heavy rain, and in the absence of immediate shelter, leave the parachute in the aircraft and lower the canopy. Notify AFE of the aircraft tail number and parachute number. A soaked parachute must be repacked. Do not fly with a wet parachute. Ponchos are available from AFE.

2.5.1.1. **(Added)** As a minimum, all qualified pilots flying 9 RW T-38s must have accessible to them in the cockpit, a current hard copy pilot’s checklist (T.O. 1T-38A-1CL-1), EFBs IAW ACCI 11-270 and local guidance requirements that are loaded with current FLIP and charts for the route of flight, and either a digital or hard copy of the 9 RW T-38 In-Flight Guide (IFG).

3.2.6. **(Added) Challenge and Response.** All pilots in Initial Qualification Training (IQT) will verbalize all checklist steps and ensure IP response for all “*” items during T-1X and I-1X blocks of training. Verbalization in follow-on training blocks is at the discretion of the IP.

3.3.5. **(Added) Partial Fuel Loads .** Partial fuel loads are authorized with Operations Supervisor (or designated representative) approval.

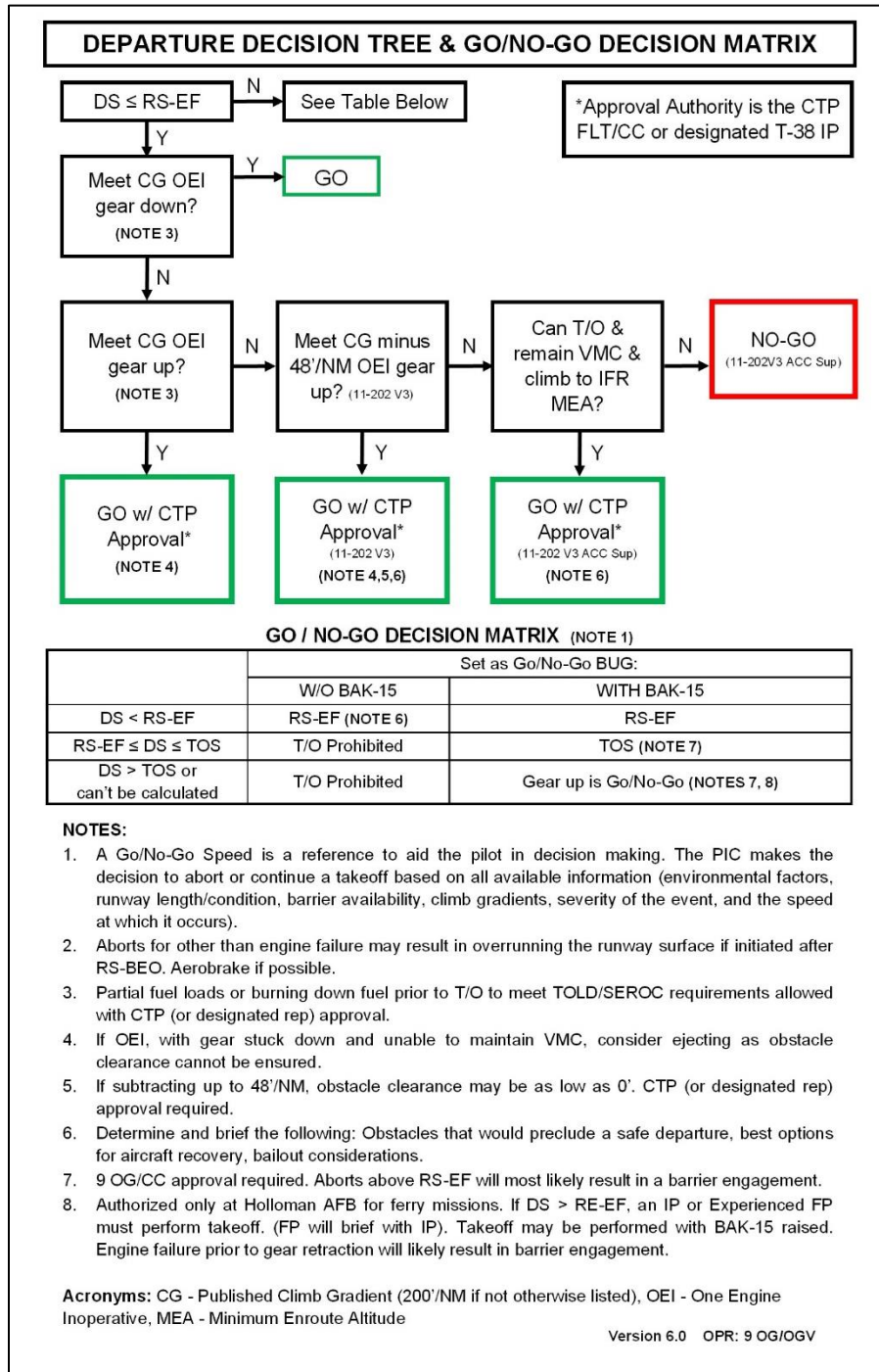
3.3.6. **(Added) VFR Bingo Fuels .** Use the bingo fuels in [Table 3.1](#) as a minimum VFR fuel from each of these locations.

Table 3.1. (Added) Bingo Fuels.

Chico Municipal (KCIC)	1,100	China MOA	1,100
Fresno Yosemite International (KFAT)	1,600	Maxwell MOA	1,300
NAS Fallon (KNFL)	1,700	Whitmore MOA	1,300
NAS Lemoore (KNLC)	1,700	Mountain View (Yosemite)	1,400
Redding Municipal (KRDD)	1,500	Ocean View (Point Reyes)	1,500
Reno International (KRNO)	1,400	IR 207 (Point Q)	1,600
Sacramento International (KSMF)	1,100	VR 201 (Point I)	1,600
Sacramento Mather (MHR)	1,200	VR 202 (Point H)	1,600
Stockton Metropolitan (SCK)	1,500	VR 1250 (Point E)	1,700
Travis AFB (SUU)	1,300	VR 1261 (Point F)	1,600

3.7.2.1. **(Added)** Aircrews will mission plan in accordance with [Figure 3.1](#) and adhere to the required approval levels.

Figure 3.1. (Added) Departure Decision Tree & Go/No-Go Decision Matrix.



- 3.7.2.2. **(Added)** When at Holloman AFB and Note 8 of the **Figure 3.1** is applicable, either an experienced pilot who has been briefed by an IP during mission planning or an IP must do the take-off.
- 3.10.7. **(Added)** Minimum altitude for stalls and slow flight is 8,000 feet above ground level. Maximum altitude is FL200.
- 3.10.7.1. **(Added)** Use caution when conducting stall recoveries above 17,000 feet MSL due to the increased risk of an engine compressor stall.
- 3.20.9. **(Added)** Conduct all LLNAV training no earlier than 30 minutes after sunrise and exit all low altitude routes or structures no later than 30 minutes prior to sunset.
- 3.20.10. **(Added)** Single-ship LLNAV sorties must be flown dual.
- 3.23.4.3. **(Added)** Night formation is prohibited.
- 3.24.4. **(Added)** Touch-and-Go landings are permitted in CTP assigned T-38A aircraft outside of approved training syllabi and functional/operational test flights in order to improve aircrew skill and decision-making during landing/takeoff phases of flight. There is no set limit to the number of touch-and-go landings performed per sortie. The following restrictions apply:
- 3.24.5. **(Added)** Maximum fuel for a no-flap overhead pattern or no-flap landing is 2500 lbs.
- 3.24.6. **(Added)** Simulated single-engine circling approaches or overhead patterns are prohibited.
- 3.24.6.7. **(Added)** A single-engine scenario may be accomplished once the aircraft has completed the final turn.
- 3.24.7. **(Added)** Initiate practice single-engine go-arounds by 100 feet AGL (300 feet AGL if full flaps are used).
- 3.24.8. **(Added)** No-Flap Full Stop Landings are authorized at Beale AFB with the following restrictions:
- 3.24.8.1. **(Added)** There must be an IP in the aircraft.
- 3.24.8.2. **(Added)** The runway must be dry.
- 3.24.8.3. **(Added)** The fuel on board must be less than 1,200 lbs.
- 3.24.8.4. **(Added)** The full runway length is available.
- 3.31.6. **(Added)** Formation touch-and-go landings are prohibited.

GEOFFREY I. CHURCH, Col, USAF
Commander

Attachment 1 (Added)**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION***References*

- Air Force Policy Directive 11-2**, *Aircrew Operations*, 31 January 2019
- AFI 11-200**, *Aircrew Training, Standardization/Evaluation and General Operations Structure*, 21 September 2018
- AFI 11-202, V3**, *General Flight Rules*, 10 August 2016
- AFMAN 11-202V3**, *Flight Operations*, 10 January 2022
- AFMAN 11-202V3_ACCSUP**, *Flight Operations*, 8 November 2022
- AFPAM 11-205**, *Aircrew Quick Reference to Aircraft Cockpit and Formation Flight Signals*, 9 August 2018
- DAFMAN 11-209**, *Participation in Aerial Events*, 22 May 2018
- AFI 11-214**, *Air Operations Rules and Procedures*, 14 August 2012
- AFI 11-215**, *Flight Manuals Program*, 25 March 2019
- AFMAN 11-218**, *Aircraft Operations and Movement on the Ground*, 5 April 2019
- AETCMAN 11-251, V1**, *T-38C Flying Fundamentals*, 4 April 2017
- AFMAN 11-2T-38, V1**, *T-38 Aircrew Training*, 15 May 2020
- AFI 13-201**, *Airspace Management*, 21 August 2012
- AFI 13-204, V3**, *Airfield Operations Procedures and Programs*, 1 September 2010
- AFMAN 11-301V2**, *Management and Configuration Requirements for Aircrew Flight Equipment (AFE)*, 13 February 2020
- AFI 33-322**, *Records Management and Information Governance Program*. 23 March 2020
- Air Force Tactics, Techniques and Procedures 3-2.5**, *Multi-service Brevity Codes (FOUO)*, 1 July 2016
- Time Compliance Technical Order 1T-38C-546**, 1 April 2009
- TO 1T-38A-1**, *Flight Manual, USAF Series T-38A and AT-38B Aircraft*, 15 July 2011
- TO 1T-38C-1**, *Flight Manual, USAF Series T-38C Aircraft*, 8 March 2016
- TO 1T-38C-1CL-1**, *Flight Crew Checklist – Pilot Abbreviated, T-38A Aircraft*, 1 April 2020
- FAA AC 90-100A**, *U.S. Terminal and En Route Area Navigation Operations*, 1 March 2007

Prescribed Forms

AF Form 4290, *Unplanned Supersonic Flight Activity Log*

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AB—afterburner

AFMAN—Air Force manual

AGL—above ground level

ATC—air traffic control

(Added) CTP—Companion Trainer Program

(Added) EFB—Electronic Flight Bag

EGI—inertial navigation system

FLIP—flight information publication

(Added) FP—Basic Qualification Pilot

GPS—Global Positioning System

(Added) IFG—In-Flight Guide

IFR—instrument flight rules

IMC—instrument meteorological conditions

IP—instructor pilot

(Added) IQT—Initial Qualification Training

KIO—knock it off

KTS—knots, airspeed as displayed in the cockpit -- indicated or calibrated

(Added) LLNAV—Low Level Navigation

(Added) LPU—Life Preserver Unit

MAJCOM—major command

MIL—military

MSA—minimum safe altitude **MSL**—mean sea level

nm—nautical mile

MOA—military operating area

OPR—office of primary responsibility

PIC—pilot in command

PMP—propulsion modernization program

RAA—route abort altitude

RCAM—Runway Condition Assessment Matrix

(Added) RCP—Rear Cockpit

RNAV—terminal area navigation

SAR—search and rescue

SD—spatial disorientation

TACAN—tactical air navigation

TO—technical order

(Added) TOLD—Takeoff and Landing Data

VFR—visual flight rules

VMC—visual meteorological conditions

Attachment 14 (Added)

MINIMUM EQUIPMENT LIST

A14.1. 9 OG/CC may waive restrictions on a case-by-case basis if flight safety or Air Force directives are not compromised. This authority may not be delegated below 9 OG/CD.

A14.1.2. Reference AFI 21-103 ACC Supplement Addendum Z *Equipment Inventory, Status, and Utilization Reporting System T-38A/AT-38B Minimum Essential Subsystem List (MESL)* for a complete listing of required systems.

Table A14.1. (Added) T-38A CTP Minimum Equipment List.

#	INOPERATIVE SYSTEM	Day and VMC		Night, IMC, OST/O&B	
		Dual	Solo	Dual	Solo
1	WINDSHIELD/CANOPY	X	X1	X	X1
2	AC/ENVIRONMENTAL CONTROLS	X2	X2	X2	X2
3	POSITION LIGHTS			X	X
4	LANDING LIGHT	X	X	X	X
5	ANTI COLLISION LIGHTS	X3	X3	X	X
6	OXYGEN SYSTEM	X	X1	X	X1
7	IFF w/MODE C AND MODE S	X4	X4	X4	X4
8	G-METER	X5	X5	X5	X5
9	CLOCK				
10	INTERPHONE	X		X	
11	UHF RADIO	X3	X3	X3	X3
12	ILS/LOC			X	X1
13	TACAN/DME	X	X1	X	X1
14	AOA INDICATOR/INDEXER	X	X1	X	X1
15	PRIMARY ADI	X	X1	X	X1
16	STANDBY ADI			X	X1
17	HSI	X	X1	X	X1
18	YAW DAMPER				
NOTES:					
1. Acceptable for flight if a discrepancy affects rear cockpit only and the aircraft is flown solo.					
2. Manual temperature control is required if automatic mode is inoperative.					
3. Acceptable for flight if one or more operate.					
4. Acceptable for formation flight if at least one aircraft in the formation has an operable IFF.					
5. Minimum of one operable, must be operable in the front cockpit.					

Attachment 15 (Added)
BIRD WATCH CONDITION RESTRICTION SUMMARY

Table A15.1. (Bird Watch Condition Restriction Summary.)

	BWC Mod Phase I	BWC Mod Phase II	BWC Severe
Takeoff	No wing takeoffs	No wing takeoffs	Prohibited
Patterns	No Form Approaches Mission requirements only: (Syllabus, RAP, etc)	No Form Approaches Mission requirements only: (Syllabus, RAP, etc) Retain sufficient fuel to divert if BWC elevates	Prohibited Hold (fuel permitting)
Landings	No Form Landings	No Form Landings	Non-Emergency A/C may land w/ OG/CC approval If divert fuel is reached w/o OG/CC approval to land, divert.
*Civil or Foreign fields – PICs will follow BWC Moderate procedures if they receive a civilian ATC/ATIS advisory to use caution for birds in the vicinity.			