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Flight Standardization Board Report

Revision: 2
Date: XX/XX/XXXX

Manufacturer
Dassault Aviation

Type Certificate Data Sheet (TCDS)	TCDS Identifier	Marketing Name	Pilot Type Rating
T00065IB	Falcon 6X	Falcon 6X	DA-6X

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1. RECORD OF REVISIONS

Revision Number	Section(s)	Date
Original	All	08/23/2023
1	3, 5, 9, Appendix 4	11/22/2023
2	2, 3, 4, 5, 6, 9, Appendices 3, 4, 5, 6	XX/XX/XXXX

2. INTRODUCTION

The Aircraft Evaluation Division (AED) is responsible for working with aircraft manufacturers and modifiers, during the development and Federal Aviation Administration (FAA) certification of new and modified aircraft to determine:

1) The pilot type rating,
2) Flightcrew member training, checking, and currency requirements, and
3) Operational suitability.

This report lists those determinations for use by:

1) FAA employees who approve training programs,
2) FAA employees and designees who certify airmen, and
3) Aircraft operators and training providers, to assist them in developing their flightcrew member training, checking and currency.

3. HIGHLIGHTS OF CHANGE

The purpose of this revision is to add post type certification changes that were evaluated on an aircraft equipped with modifications. These modifications include the Sirius XM in INAV, TOLD data, ADF, Airport Moving Map 2D and 3D, Third FMS, ADS-B-IN, Lightning Sensor System, Windshear Escape Guidance, ROAAS, and the Falcon Eye/HUD with enhanced flight vision system (EFVS) for operational credit. This also updates Appendix 4, Head-Up Display (HUD) and HUD Enhanced Flight Visions Systems (EFVS) (Situational Awareness), to include FalconEye Dual HUD configuration, and adds Appendix 5, Head-Up Display (HUD) with Enhanced Flight Vision Systems (EFVS) (Operational Credit), to address training and checking for the HUD and HUD enhanced flight and synthetic visions systems, and Appendix 6, Steep Approach Landing Operations.

4. BACKGROUND

The General Aviation Branch, AED formed a Flight Standardization Board (FSB) that evaluated the Dassault Aviation Falcon 6X as defined in FAA Type Certificate Data Sheet (TCDS) No. T00065IB. The evaluation was conducted during April, May, and June 2023 using the methods described in FAA Advisory Circular (AC) 120-53B Change 1, Guidance for Conducting and Use of Flight Standardization Board Evaluations.

The General Aviation Branch, AED conducted an FSB that evaluated post type certificate (TC) modifications. Modifications include the Sirius XM in INAV, TOLD data, ADF, Airport Moving Map 2D and 3D, Third FMS, ADS-B-IN, Lightning Sensor System, Windshear Escape Guidance, ROAAS and the Falcon Eye/HUD with EFVS for operation credit. We evaluated the HUD with EFVS Operations for Credit to 100 feet on the Dassault Aviation Falcon 6X as defined in FAA TCDS No. T00065IB. The evaluation was conducted in November 2024 using the methods described in FAA AC 120-53B Change 1, Guidance for Conducting and Use of Flight Standardization Board Evaluations.

The General Aviation Branch, AED conducted an FSB in May 2025 to evaluate operational suitability and to determine training, checking, and currency requirements for conducting steep approach landing operations for aircraft on the T00065IB TCDS.

5. ACRONYMS

- 2D Two Dimensional
- 3D Three Dimensional
- 14 CFR Title 14 of the Code of Federal Regulations
- AB1 Airbrake 1
- AC Advisory Circular
- ACS Airman Certification Standards
- ACFT Aircraft
- ADF Automatic Direction Finder
- ADS Air Data System
- ADS-B-IN Automatic Dependent Surveillance-Broadcast IN
- AED Aircraft Evaluation Division
- AFM Airplane Flight Manual
- AIP Aircraft Information Publication
- AOA Angle of Attack
- ATP Airline Transport Pilot
- AV Audiovisual Presentation
- CBT Computer-Based Training
- CG Center of Gravity
- CODDE Crew Operational Documentation for Dassault EASy
- CPT Cockpit Procedures Trainer
- CVS Combined Vision System
- DA Decision Altitude
- DFCS Digital Flight Control System
- DTK Direct Track
- EASy Enhanced Avionics System
- EFVS Enhanced Flight Visions System
- EGPWS Enhanced Ground Proximity Warning System
- EVS Enhanced Vision System
- FAA Federal Aviation Administration
- FAF Final Approach Fix

- FFS Full Flight Simulator
- FMS Flight Management System
- FMW Flight Management Window
- FPV Flight Path Vector
- FSB Flight Standardization Board
- FSBR Flight Standardization Board Report
- FSTD Flight Simulation Training Device
- FTD Flight Training Device
- HGS Head-Up Guidance System
- HO Handout
- HUD Head-Up Display
- IMC Instrument Meteorological Conditions
- ICBI Interactive Computer-Based Instruction
- ILS Instrument Landing System
- INAV Integrated Navigation
- IRS Inertial Reference System
- LH Left Hand
- LPV Localizer Performance With Vertical Guidance
- LNAV Lateral Navigation
- LSC Low Speed Cues
- LSS Lightning Sensor System
- LVO Low Visibility Operations
- MDR Master Differences Requirements
- MFF Mixed Fleet Flying
- NAS National Airspace System
- NM Nautical Miles
- O2 Oxygen
- PIC Pilot In Command
- PF Pilot Flying
- PM Pilot Monitoring
- PTT Part Task Trainers
- QRH Quick Reference Handbook
- RAT Ram Air Turbine
- RH Right Hand
- ROOAS Runway Overrun Awareness and Alerting System
- RVR Runway Visual Range
- SFD Secondary Flight Display
- STC Supplemental Type Certificate
- SU Stand-Up Instruction
- SVS Synthetic Vision System
- TC Type Certificate
- TCAS Traffic Alert and Collision Avoidance System
- TCBI Tutorial Computer-Based Instruction
- TCDS Type Certificate Data Sheet

- TOLD Takeoff and Landing Data
- THS Trimmable Horizontal Stabilizer
- V_1 Takeoff Decision Speed
- VMC Visual Meteorological Conditions
- VNAV Vertical Navigation
- VPRL Vertical Path Reference Line
- XVS EVS or CVS

6. DEFINITIONS

These definitions are for the purposes of this report only.

6.1 Base Aircraft. An aircraft identified for use as a reference to compare differences with another aircraft.

6.2 Current. A crewmember meets all requirements to operate the aircraft under the applicable operating part.

6.3 Differences Tables. Describe the differences between a pair of related aircraft, and the minimum levels operators must use to conduct differences training and checking of flightcrew members. Differences levels range from A to E.

6.4 Master Differences Requirements (MDR). Specifies the minimum levels of training and checking required between a pair of related aircraft, derived from the highest level in the Differences Tables.

6.5 Mixed Fleet Flying (MFF). The operation of a base aircraft and one or more related aircraft for which credit may be taken for training, checking, and currency events.

6.6 Operational Evaluation. The AED process to determine pilot type rating, minimum flightcrew member training, checking and currency requirements, and unique or special airman certification requirements (e.g., specific flight characteristics, no-flap landing).

6.7 Operational Suitability. The AED determination that an aircraft or system may be used in the National Airspace System (NAS) and meets the applicable operational regulations (e.g., Title 14 of the Code of the Federal Regulations (14 CFR) parts 91, 121, 133, and 135).

6.8 Qualified. A flightcrew member holds the appropriate airman certificate and ratings as required by the applicable operating part.

6.9 Related Aircraft. Any two or more aircraft of the same make with either the same or different type certificates (TC) that have been demonstrated and determined by the Administrator to have commonality.

6.10 Seat-Dependent Tasks. Maneuvers or procedures using controls that are accessible or operable from only one flightcrew member seat.

6.11 Special Emphasis Area. A training requirement unique to the aircraft, based on a system, procedure, or maneuver, which requires additional highlighting during training. It may also require additional training time, specialized flight simulation training devices (FSTD) or training equipment.

6.12 Specific Flight Characteristics. A maneuver or procedure with unique handling or performance characteristics that the FSB has determined must be checked.

7. PILOT TYPE RATING

7.1 Type Rating. The Falcon 6X type rating designation is DA-6X.

7.2 Common Type Ratings. Not applicable.

7.3 Military Equivalent Designations. Military aircraft that qualify for the DA-6X type rating can be found at www.faa.gov under "Licenses & Certificates," "Airmen Certification," "Online Services," "Aircraft Type Rating Designators." This webpage is kept up-to-date and can be found at: https://www.faa.gov/licenses_certificates/airmen_certification/.

8. RELATED AIRCRAFT

8.1 Related Aircraft on Same TCDS. Not applicable.

8.2 Related Aircraft on Different TCDS. Not applicable.

9. PILOT TRAINING

9.1 Airman Experience. Airmen receiving DA-6X initial, differences, upgrade or transition training will benefit from prior experience operating multi-engine transport jet aircraft. Additionally, a working knowledge of advanced aircraft systems, highly integrated avionics systems with electronic flight displays, and flight management system (FMS) is highly recommended. Pilots without this experience may require additional training.

9.2 Special Emphasis Areas.

9.2.1 Pilots must receive special emphasis during initial, differences, upgrade, recurrent or transition on the following areas during ground training:

a) Proper use and interpretation of the Flight Path Vector (FPV) and Acceleration Chevron.

b) Proper use and interpretation of the Low Speed Cues (LSC).

c) Falcon Operational Method.

d) Use of airbrakes with autopilot engaged.

e) Sidestick priorities.

f) Autothrottle.

g) Proficiency in operating RDR-4000.

h) Possible late and slow rotation at takeoff.

i) Heading legs and floating direct track (DTK) legs.

j) Proficiency in operating FMS (EASy IV First Certification).

k) Vertical navigation (VNAV) mode without lateral navigation (LNAV).

l) Trimmable Horizontal Stabilizer (THS) stuck in take-off position.

m) Asymmetrical retraction of AB1 due to one aileron or flaperon jammed in deflected position.

n) Rotation Technique in case of engine failure at or after V_1.

o) Smoke in baggage compartment.

p) Windshear maneuver (aircraft with no windshear guidance).

q) Unwanted Ram Air Turbine (RAT) extension on ground.

r) Use of Secondary Flight Display (SFD) instrument landing system (ILS) raw deviations.

s) Wing Anti-Ice Protection System.

t) Air Data System (ADS): All unreliable.

u) Security Protection of System and Networks.

v) Digital Flight Control System (DFCS) degradation (Alternate or Direct Laws) during go around.

w) Recommended practices in the event of delayed braking response below 40 kts.

x) ROAAS (for aircraft equipped with M-OPT0129).

9.2.2 Pilots must receive special emphasis training during initial, differences, upgrade, recurrent or transition, and perform the following areas during flight training:

a) Proper use and interpretation of the FPV and Acceleration Chevron.

b) Proper use and interpretation of the LSC.

c) Use of O2 masks.

d) Sidestick priorities.

e) Rotation Technique in case of engine failure at or after V_1.

f) THS stuck in take-off position.

g) Maneuvering in Direct Law (light weight/rear CG).

h) Autothrottle.

i) Windshear maneuver without guidance.

j) Wing Anti-Ice Protection System.

k) ADS: All unreliable.

l) Proficiency in operating RDR-4000.

9.3 Specific Flight Characteristics. Maneuvers or procedures required to be checked as referenced in the Airline Transport Pilot (ATP) and Type Rating for Airplane Airman Certification Standards (ACS). There are no specific flight characteristics.

9.4 Seat-Dependent Tasks. There are no seat dependent tasks identified by the FSB.

9.5 Regulatory Training Requirements Which Are Not Applicable to the Falcon 6X.

9.5.1 Part 135: Propellers.

9.5.2 Part 91 subpart K: Propellers.

9.6 Flight Simulation Training Devices (FSTD).

9.6.1 The HUD training is a Level E differences as defined in Appendix 1, if conducted in a simulator, it must be trained in a Level C or higher full flight simulator (FFS) with a Head-Up Guidance System (HGS) and an operative visual system. See additional information in Appendix 4, Head-Up Display (HUD) and HUD Enhanced Flight Visions Systems (EFVS) (Situational Awareness).

9.6.2 The HUD EFVS training is a Level E differences as defined in Appendix 1 and must be trained in a Level C or higher FFS with a daylight visual system. See additional information in Appendix 4, Head-Up Display (HUD) and HUD Enhanced Flight Visions Systems (EFVS) (Situational Awareness).

9.7 Training Equipment. There are no specific systems or procedures that are unique to the Falcon 6X that require specific training equipment.

9.8 Differences Training Between Related Aircraft. Not applicable.

10. PILOT CHECKING

10.1 Landing from a No-Flap or Nonstandard Flap Approach. The probability of flap extension failure on the Falcon 6X is not extremely remote due to system design. Therefore, demonstration of a no-flap approach and landing during pilot certification is required. During a 14 CFR § 61.58 proficiency check, § 91.1065 competency check, or § 135.293 competency check, this task may be required. Refer to Order 8900.1, Volume 5, Airman Certification, when the test or check is conducted in an aircraft versus an FFS.

10.2 Specific Flight Characteristics. There are no specific flight characteristics.

10.3 Seat-Dependent Tasks. There are no seat dependent tasks.

10.4 Other Checking Items. Not applicable.

10.5 Flight Simulation Training Devices (FSTD). There are no specific systems, procedures, or maneuvers that are unique to the Falcon 6X that require a specific FSTD for checking.

10.6 Equipment. There are no specific systems or procedures that are unique to the Falcon 6X that require specific equipment.

10.7 Differences Checking Between Related Aircraft. Not applicable.

11. PILOT CURRENCY

There are no additional currency requirements for the Falcon 6X other than those already specified in 14 CFR parts 61 and 135.

11.1 Differences Currency Between Related Aircraft. Not applicable.

12. OPERATIONAL SUITABILITY

The Falcon 6X is operationally suitable for operations under 14 CFR parts 91, 91 subpart K, and 135. The FSB determined operational compliance by conducting an evaluation of aircraft serial number 003 completed on June 9, 2023. The list of operating rules evaluated is on file at the General Aviation Branch, AED.

13. MISCELLANEOUS

13.1 Forward Observer Seat. The Falcon 6X forward observer seat as installed by type certificate T00065IB has been evaluated and determined to meet requirements of 14 CFR § 135.75(b).

13.2 Aircraft Approach Category. The Falcon 6X is considered a Category C aircraft for the purposes of determining the appropriate instrument approach procedure category in accordance with 14 CFR § 97.3.

13.3 Normal Landing Flaps. The Falcon 6X normal "final flap setting" per 14 CFR § 91.126(c) is SF3.

APPENDIX 1. DIFFERENCES LEGEND

Training Differences Legend

Differences Level	Type	Training Method Examples	Conditions
A	Self-Instruction	• Operating manual revision (handout (HO)) • Flightcrew operating bulletin (HO)	• Crew has already demonstrated understanding on base aircraft (e.g., updated version of engine). • Minor or no procedural changes required. • No safety impact if information is not reviewed or is forgotten (e.g., different engine vibration damping mount). • Once called to attention of crew, the difference is self-evident.
B	Aided Instruction	• Audiovisual presentation (AV) • Tutorial computer-based instruction (TCBI) • Stand-up instruction (SU)	• Systems are functionally similar. • Crew understanding required. • Issues need emphasis. • Standard methods of presentation required.
C	Systems Devices	• Interactive (full-task) computer-based instruction (ICBI) • Cockpit Procedures Trainers (CPT) • Part task trainers (PTT) • Level 4 or 5 flight training device (FTD 4-5)	• Training can only be accomplished through systems training devices. • Training objectives focus on mastering individual systems, procedures, or tasks versus highly integrated flight operations or “real-time” operations. • Training devices are required to assure attainment or retention of crew skills to accomplish more complex tasks usually related to aircraft systems.
D	Maneuvers Devices	• Level 6 or 7 flight training device (FTD 6-7) • Level A or B full flight simulator (FFS A-B)	• Training can only be accomplished in flight maneuver devices in a real-time environment. • Training requires mastery of interrelated skills versus individual skills. • Motion, visual, control-loading, and specific environmental conditions may be required.
E	Level C/D FFS or Aircraft	• Level C or D full flight simulator (FFS C-D) • Aircraft (ACFT)	• Motion, visual, control-loading, audio, and specific environmental conditions are required. • Significant full-task differences that require a high fidelity environment. • Usually correlates with significant differences in handling qualities.

Checking Differences Legend

Differences Level	Checking Method Examples	Conditions
A	None	None
B	• Oral or written exam • Tutorial computer-based instruction (TCBI) self-test	Individual systems or related groups of systems.
C	• Interactive (full-task) computer-based instruction (ICBI) • Cockpit Procedures Trainers (CPT) • Part task trainers (PTT) • Level 4 or 5 flight training device (FTD 4-5)	• Checking can only be accomplished using systems devices. • Checking objectives focus on mastering individual systems, procedures, or tasks.
D	• Level 6 or 7 flight training device (FTD 6-7) • Level A or B full flight simulator (FFS A-B)	• Checking can only be accomplished in flight maneuver devices in a real-time environment. • Checking requires mastery of interrelated skills versus individual skills. • Motion, visual, control-loading, and specific environmental conditions may be required.
E	• Level C or D full flight simulator (FFS C-D) • Aircraft (ACFT)	Significant full-task differences that require a high fidelity environment.

APPENDIX 2. MASTER DIFFERENCES REQUIREMENTS (MDR) TABLE

Not Applicable.

APPENDIX 3. DIFFERENCES TABLES

This Design Differences Table, from Falcon 6X without the design change to the Falcon 6X equipped with the design changes, was proposed by manufacturer and validated by the FSB on September 2, 2025. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

FROM BASE AIRCRAFT: DA-6X TO RELATED AIRCRAFT: DA-6X (Equipped with the concerned changes)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	M0446 – Introduction of TOLD function		No	Yes	B	A
	M-OPT0033 - Lightning Sensor System (LSS)		No	No	A	A
	M-OPT0043 - Automatic Direction Finder (ADF)		No	Yes	A	A
	M-OPT0044 - 3rd Flight Management System (FMS)		No	Yes	A	A
	M-OPT0122 - Sirius XM in INAV		No	No	A	A
	M-OPT0130 - 2D Airport Moving Map		No	Yes	B	A

FROM BASE AIRCRAFT: DA-6X TO RELATED AIRCRAFT: DA-6X (Equipped with the concerned changes)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	M-OPT0131 - 3D Airport Moving Map		No	Yes	B	A
	M-OPT0132 - ADSB-in with Cockpit Display Traffic Information - Airborne		No	No	A	A
	M-OPT0133 - ADSB-in Cockpit Display Traffic Information - Surface		No	No	A	A
	M0450 – Windshear Escape Guidance		No	Yes	B	A
	M-OPT0129 - ROAAS		No	Yes	B	A

APPENDIX 4. HEAD-UP DISPLAY (HUD) and HUD WITH ENHANCED FLIGHT VISION SYSTEMS (EFVS) (SITUATIONAL AWARENESS)

1. BACKGROUND

This appendix pertains to FalconEye Head-Up Display (HUD) and Head-Up Display (HUD) systems with additional capabilities, including enhanced flight vision systems (EFVS), installed in the Falcon 6X.

1.1 After original type certification there where the following modifications:

a) M-OPT0001 this was for the single HUD installation with synthetic vision system (SVS).
b) M-OPT0002 Single HUD with Enhanced Flight Vision System and Combined Vision System.
c) M-OPT0062 Dual HUD.

The recommendations in this report are for the use of this equipment for situational awareness, and the use of the system for EFVS operations for credit under 14 CFR § 91.176(b) were evaluated and found operationally suitable. Reference Appendix 5 for HUD EFVS operational credit.

2. PILOT TYPE RATING

The pilot type rating for aircraft designated as DA-6X remains unchanged with the FalconEye HUD installed or FalconEye HUD installed with EFVS or Combined Vision System (CVS).

3. RELATED AIRCRAFT

Not Applicable.

4. PILOT TRAINING

4.1 General.

Prior to HUD use, in any weather or operation, pilots should be trained in accordance with the requirements listed in this Flight Standardization Board Report (FSBR). Ground and flight (simulator or aircraft) training is required. Unless covered concurrently during an initial, differences, upgrade, recurrent or transition type rating course, a prerequisite to beginning this course is prior training qualification, and currency in the DA-6X airplane. This training program focuses primarily on the pilot flying (PF), but pilot monitoring (PM) indoctrination and training is also essential. Where there are procedural differences for the PM when the PF is using the HUD, training of PM duties in the right seat is required.

See paragraph 4.3 for EFVS training requirements. In order to use a HUD system with advanced features (EFVS and CVS), pilots must first be trained to conduct HUD operations. Training centers may develop courses that combine HUD and EFVS training.

For both HUD and EFVS trainings, Pilots who have completed PF training need not complete any PM training since callouts in the PM position remain the same regardless of HUD use. Training centers may develop courses that consider prior HUD experience to reduce the duration requirement.

This training can be conducted as a standalone course or integrated into any training curriculum (i.e., initial, transition, upgrade, recurrent). If part of a curriculum, the FSB recommends conducting this training early to allow as much use of the HUD and EFVS as practical during the remaining training.

For operational approval, system limitations, normal operating procedures, and Abnormal/Emergency procedures, refer to the respective Airplane Flight Manual (AFM) Supplement, Crew Operational Documentation for Dassault EASy (CODDE) and quick reference handbook (QRH).

Flight training is required and must be provided in an aircraft or an FAA-approved simulator qualified to Level C with a daylight visual system or to Level D with the appropriate HUD system installed. The EFVS standards must at least meet the requirements contained in the Guidance Bulletin 03-03, Enhanced Flight Vision System (EFVS) FSTD Qualification, issued by the National Simulator Program Branch or any other relevant regulation.

The simulator provides the ideal EFVS training environment and its use is preferred for this training. Simulators provide the ability to change training locations, set specific weather minimums, and change weather rapidly and significantly to provide a greater variety of training situations. They also provide the ability to freeze the training, allowing the student to positively identify the differences between enhanced and natural vision at key times. Aircraft training is acceptable, but operators need to understand and account for these limitations. Pilots must also be aware that the visual contrast in simulators is often better than in the aircraft.

When able, training should be conducted to/from airfields with a mountainous environment in order to demonstrate the benefit of various technologies (e.g., St. Johns, Newfoundland, Canada (CYYT), Aspen, Colorado (KASE)).

4.2 HUD.

4.2.1 Ground Training. Ground training can be instructor led or provided through computer-based training (CBT). An initial, differences, upgrade, recurrent or transition ground training program should include the following elements:

4.2.1.1 HUD.

a) HUD equipment.

b) HUD controls.

c) HUD modes of operation.

d) HUD symbology, including the interrelationship with airplane aerodynamics, limit conditions and failures, inertial factors, and environmental conditions.

e) Operational concepts, crew duties and responsibilities, crew coordination, callouts and responses, and operational procedures including preflight, normal, and non-normal pilot activities.

f) Description of the availability and limitations of visual cues encountered on approach both before and after decision altitude (DA). This would include:

1) Procedures for unexpected deterioration of conditions to less than minimum Runway Visual Range (RVR) encountered during approach, flare, and rollout.

2) Demonstration of expected visual references with weather at minimum conditions.

3) Expected sequence of visual cues during an approach in which visibility is at or above landing minima.

4.2.1.2 SVS.

a) SVS concepts.

b) Database information.

c) Terrain.

d) Obstacles.

e) Airports and other ground features.

f) Display symbology.

g) Pilot controls (control panel, sidestick, high/low selector) and recommended settings.

4.2.2 Flight Training. Unless integrated with initial, differences, upgrade, recurrent or transition training, flight training dedicated to HUD familiarization and proficiency is in addition to other required elements.

Flight training should include a variety of ground and airborne system failures requiring pilot recognition and appropriate procedural actions. Demonstrated

system/component failures could include flap asymmetry problems, engine out operations, HUD sensor failures, etc. Demonstrate how HUD failure modes can reduce precision and increase pilot workload unless PF/PM duties and responsibilities are clearly delineated and understood.

4.2.2.1 Takeoff. Emphasis should be placed on the pilot's ability to transition from using outside visual cues to utilizing the HUD during the takeoff roll and departure. Emphasis should also be placed on the HUD symbology relevant to takeoff and departure operations.

4.2.2.2 Airwork. Emphasis should be placed on HUD unique symbology (i.e., flight path, flight path acceleration, airspeed error tape, angle of attack (AOA) limit bracket, and excessive pitch chevrons). When this training is complete, the trainee should have a thorough understanding of the relationship between aircraft flight path parameters and the HUD symbology.

4.2.2.3 Visual Approaches. Emphasis should be placed on the HUD symbology relevant to approach and landing operations and optimizing circling approach techniques and procedures. Approaches should begin beyond 3 nautical miles (NM) to the runway threshold.

NOTE: Approaches should be flown at various airports with dissimilar runway lighting systems.

4.2.2.4 Instrument Approaches. Emphasis should be placed on the pilot's ability to transition from utilizing the HUD during approach to using outside visual cues for landing. Instructors should demonstrate failures and incorrect settings on approach (e.g., incorrect runway elevation, airspeed, inbound course). Instructors should also demonstrate unique symbology characteristics in windshear conditions (e.g., erratic wind speed and direction, flight path acceleration, airspeed errors). All required instrument approaches should begin outside the final approach fix (FAF).

4.2.2.5 Additional Operational Considerations. Following initial training, pilots should gain proficiency utilizing the HUD in visual meteorological conditions (VMC) prior to utilizing the HUD in low visibility operations. Although 14 CFR part 91 operators are not required to comply with air carrier requirements, it is worth noting the additional experience required by air carriers to utilize the HUD in line operations.

4.2.3 Areas of Special Emphasis.

a) No Deviation from Standard Escape Procedures (HUD only). The pilot must be made aware that SVS image shall never be used to deviate from standard escape procedures contained in Dassault Aviation Limitations, Operating

Procedures, and Performances, when EGPWS, TCAS, or windshear warnings are triggered.

b) Lateral Deviation Scale. Crew must be aware that during a localizer interception following a flight management system (FMS) arrival, two lateral deviation scales (with no labels) are displayed: the lower scale is active (full pointer) for FMS deviation, and the upper scale is armed (empty pointer) until localizer interception.

c) Pilot Perception of Weather Conditions. Crew must be aware that the display of an SVS or CVS image in the HUD may impair Pilot vision of actual weather conditions.

d) FalconEye HUD must only be used in the standard inertial reference system (IRS) configuration. Until a HUD fix is available, HUD can only be used in the standard IRS configuration: IRS 1 selected on LH side, IRS 2 selected on RH side, HUD stowed in all other configurations.

e) SVS Runway Clear Zone Activation. Crew must be aware that the SVS Runway Clear Zone is not activated in HUD until V-Speeds have been sent to EASy (via the Send soft key in the FMW Landing Data tab). Otherwise, outside visual references or EVS image could be masked by the SVS image.

f) Possible Misalignment Cases. Crew must be aware that the conformal runway may not exactly coincide with the real runway; crew should be ready to remove it when visual cues are to be acquired. Also, SVS image may be shifted; although SVS image and Conformal Runway can be removed, shifted runway axis remains.

g) Controls Localization and Accessibility. PF must be aware of HUD front panel controls localization and accessibility in day and night conditions.

h) When in dual HUD operations, pilot monitoring (PM) should not excessively focus on the HUD imagery and must always provide adequate standard visual scanning on all head-down and head-up display units.

4.3 EFVS for Situational Awareness.

4.3.1 General.

In addition to providing flight guidance information, the FalconEye HUD system is combined with thermal and low-light camera images (EVS) to provide additional information to increase the pilot's situational awareness.

For the purposes of this section, the acronyms "EFVS", and "EVS" are used synonymously.

4.3.2 Training.

In order to use the EFVS in instrument meteorological conditions (IMC), the pilots should complete an approved training program meeting the specifications below.

The training program should primarily focus on the PF, but PM indoctrination and training is also essential. Where there are procedural differences for the PM when the PF is using the HUD, training of PM duties in the right seat is required.

Operating procedures described in CODDE 2 should be used as a reference concerning the crew tasks allocations, callouts and recommended displays of Enhanced Vision System (EVS) image. Focus must be made on crew coordination, especially concerning the minima annunciation (unless the operator has a specific approved procedure).

Training centers may develop courses that consider prior HUD experience to reduce the duration requirement.

In order to ensure that pilots are able to safely operate the HUD with EFVS in all phases of flight, training must include detailed information on the following:

4.3.2.1 HUD See paragraph 4.1 for HUD training recommendations.

4.3.2.2 EVS. Ground and flight training should include the elements in the current edition of AC 90-106, as applicable.

4.3.2.3 CVS.

a) CVS concepts.
b) System architecture.
c) Pilot controls and recommended settings.

4.3.2.4 Areas of Special Emphasis:

a) Crew Coordination (HUD with EVS). PM should be trained with a PF during the EVS/CVS pilot training course. Concerning human factors, to avoid tunnel effect or any other anomalies affecting the PF's perception, the task of the PM is very important in the final approach phase when the real scene appears through the EVS/CVS image. (Refer to Area of Special Emphasis related to PM tasks in Dual HUD configuration). The callouts from both pilots during this phase of flight are critical.

b) No Deviation from Standard Escape Procedures (HUD with EVS). The pilot must be made aware that EVS/CVS image shall never be used to deviate from standard escape procedures contained in Dassault Aviation Limitations, Operating Procedures, and

Performances, when EGPWS, TCAS, or windshear warnings are triggered.

c) FalconEye EVS Multi-Sensor Theory. The crew must be made aware that EFVS image is dependent on the weather conditions using general infra-red and visible theory and multi-sensor fusion principle.

d) In particular, the trainee should be made aware of the effect of cloud layer crossing and change of luminosity conditions on the resulting fused image (using dominant sensor characteristics).

e) EVS Contrast Setting. PF must be proficient at using EVS contrast settings in order to improve the rendering of EVS image details in various lighting and weather conditions.

f) Video Quality. PF must be aware that video quality is impacted when dimmed with the XVS brightness on the stick.

4.4 Multiple Curricula Training Programs (Reduced Planned Hour Training Programs). The FSB has determined that the FalconEye HUD/EFVS systems installed in the DA-6X shares common characteristics with the same HUD system installed in the DA-7X (all variations), DA-EASY (all variations) and the DA-2EASY (all variations). It may be possible, in accordance with FAA Order 8900.1, Volume 3, Chapter 19, Section 1, Scope, Concepts, and Definitions, to develop reduced planned hour HUD training programs for pilots who hold a respective type rating and have completed training in the respective HUD system.

5. PILOT CHECKING

Pilot checking requirements are dependent upon the training program objectives, and operational parts and will be defined by each training program.

6. PILOT RECURRENT TRAINING AND CURRENCY

For pilots who have previously completed HUD initial training, in conjunction with a pilot in command (PIC) proficiency check required by 14 CFR parts 61, 121, or 135, a PIC must demonstrate proficiency using the appropriate HUD system.

While the AFM establishes no explicit requirement regarding continuing qualification, it is strongly recommended that pilots use the EFVS, SVS, and/or CVS frequently enough inflight to retain proficiency in its operation. HUD, EFVS, and SVS proficiency can be maintained if all are used on a regular basis. Apart from the requirements listed in this appendix, EFVS, SVS, and/or CVS training should emphasize the need to perform HUD, EFVS, SVS and/or CVS operations as regularly as possible during normal operations, especially during takeoff, approach, and landing phases of flight.

7. OPERATIONAL SUITABILITY

The FSB has evaluated the FalconEye HUD and the FalconEye HUD with EFVS/CVS and find them operationally suitable for HUD operations under 14 CFR parts 91 and 135. HUD with SVS/EVS/CVS was not evaluated for operational credit under 14 CFR § 91.176 (b). Reference Appendix 5 for HUD EFVS operational credit.

APPENDIX 5. HEAD-UP DISPLAY (HUD) WITH ENHANCED FLIGHT VISION SYSTEMS (EFVS) (OPERATIONAL CREDIT)

Refer to Title 14 of the Code of Federal Regulations (14 CFR) part 61, § 61.66 for training, recent flight experience, and proficiency requirements for EFVS operations. Refer to Advisory Circular (AC) 90-106A, Enhanced Flight Vision Systems (as amended); and 14 CFR part 91, § 91.1065(g) or part 135, § 135.293(i), as applicable for EFVS task requirements during 14 CFR part 91 subpart K (part 91K) or part 135 competency checks.

The FSB has determined that EFVS operations are operationally suitable under 14 CFR § 91.176(b).

NOTE: The FSB evaluation does not determine compliance with 14 CFR § 61.66 requirements. When EFVS is incorporated into an approved EFVS Operations training program, the approving authority should ensure all the requirements of 14 CFR § 61.66 are met.

An operational suitability determination does not constitute an operational authorization.

1. BACKGROUND

This appendix pertains to FalconEye Head-Up Display (HUD) systems with additional capabilities, including enhanced flight vision systems (EFVS), installed in the Falcon 6X.

After original type certification there were the following modifications:

- M-OPT0001 this was for the single HUD installation with synthetic vision system (SVS).
- M-OPT0002 Single HUD with EFVS and combined vision system (CVS).
- M-OPT0062 Dual HUD.

2. PILOT TRAINING

2.1 Experience/Prerequisites.

2.1.1 For both pilots, the minimum prerequisites for entering the FalconEye HUD training course for EFVS operations with operational credit are:

- A Type Rating training initial, transition, upgrade or recurrent on DA-6X, up to but excluding the check ride.
- Training course at PF position for the FalconEye HUD and EVS for situational awareness as per Appendix 4, for both pilots.

3. AREAS OF SPECIAL EMPHASIS FOR EFVS APPROACHES WITH OPERATIONAL CREDIT

3.1 FalconEye – EFVS operational credit operation – Key points.

3.1.1 Eligibility of Runway for EFVS Approach. Based on approach charts, the trainee must be capable to recognize runways eligible for EFVS approaches with "operational credits" from the ones not eligible.

3.1.2 Control Settings. Pilot must be aware of the recommended control settings to begin the EFVS approach.

3.1.3 Possible Automatic Call-Outs Delay. The trainee must be made aware of the importance of the PM call-out "EVS MINIMUM" at the EVS minimum, because of possible delays in automatic EFVS call-outs due to prioritization of others automatic call-outs (e.g., call-out of autopilot disconnection).

3.1.4 Crosswind Approaches. PF must be aware that in crosswind conditions, the runway approach lights can be partially displayed.

3.1.5 Consistency Check. Crew must be aware of the consistency checks to be performed between HUD symbology (FPV, VPRL, conformal runway) and EVS image and/or natural vision at each decision point (approaching minimum, at minimum, at EVS minimum) according to operational Dassault Aviation documentation.

3.1.6 Operations in Poor Visibility. Crew must be familiar with the specificities of operating in poor visibility conditions (i.e., different types of fog, sensorial illusions, characteristics of infrastructures and associated volumes of protection, AIP procedures to be considered in case of LVO).

3.2 FalconEye – EFVS operational credit operation – Briefing.

3.2.1 In addition to standard approach briefing, and according to Dassault Aviation operational documentation, flightcrew must be proficient in briefing the following points:

- Specificities of approach and runway geometry.
- Approach and runway lighting system.
- Crew strategy for using aircraft automation during the approach.

APPENDIX 6. STEEP APPROACH LANDING OPERATIONS

1. BACKGROUND

A Flight Standardization Board (FSB) was convened in May 2025 to evaluate operational suitability and to determine training, checking, and currency requirements for conducting steep approach landing operations for aircraft on the T00065IB Type Certificate Data Sheet (TCDS). Supporting regulatory material is the FAA Issue Paper (IP) O-7, Steep Approach Operational Suitability.

FSB members completed the full flight simulator (FFS) portion of the evaluation at CAE's Burgess Hill (UK) location. The flight portion of the evaluation was done at Dassault Aviation's facilities in Istres, France. Certification activities were conducted together with FSB evaluation.

Steep approach landing operations are defined as those glide paths greater than 4.5°. The maximum glide path is noted in the Airplane Flight Manual (AFM) limitations. Dassault Aviation modification for steep approach landing operations is Modification M0519 (up to 5.5°, similar to London City, London, England).

The FSB evaluation included numerous steep approach landing operations, both on the FFS and on the actual aircraft.

All engines operative and one engine inoperative (OEI) steep approach landing operations were flown, terminating either with a landing, or execution of a missed approach or balked landing procedure. Inadvertent touchdown during balked landings was evaluated. Although steep approach landing operations must be conducted with all engines operative, the FSB evaluated piloting skills required to perform an OEI extraction should an engine fail at or below decision altitude (DA).

2. PILOT TYPE RATING

The pilot type rating for the DA-6X remains unchanged with the addition of steep approach capability.

3. RELATED AIRCRAFT

Not applicable.

4. PILOT TRAINING

The FSB has determined that the conduct of steep approach landing operations requires no higher piloting skill level than that of normal (3.0°) approaches. However, since steep approach landing operations are often tailored to demanding airports (located in mountainous areas, short runways) the FSB requires academic and flight training for competency in conducting steep approach landing operations.

4.1 Prerequisites.

4.1.1 Unless DA-6X steep approach training is integrated with, or occurs sequentially preceding, an initial qualification pilot proficiency check, a prerequisite to steep approach training is prior training, qualification, and currency in the DA-6X.

4.1.2 Any pilot in command (PIC)/second in command (SIC) who has been properly qualified in DA-6X under 14 CFR part 61, § 61.55, part 91 subpart K (part 91K), 121, or 135 may conduct steep approach landing operations provided the training, checking, and currency requirements of this appendix have been satisfactorily accomplished.

4.2 Special Emphasis Areas.

4.2.1 Initial training must be conducted in a Level C or D FFS and must address the following:

a) Briefing prior to the simulator session to include: Dassault Aviation Limitations, Operating Procedures and Performance with special emphasis on the steep approach landing distance, and transition from a glide path reference system to a visual glide path indicating system.

b) Phases of the steep approach must include: stabilized approach concept as a key success for steep approach landing, appropriate slats/flaps configuration and airbrakes, and approach speed.

c) Task sharing: the crew should become proficient in the task sharing described in the Special Procedure for steep approach, in particular regarding go-around.

4.2.2 Each pilot has to be trained for any position at which it is allocated during a steep approach.

4.3 Additional Recommendations.

4.3.1 The initial training should comprise, as a minimum, three steep approaches:

a) One approach with full stop landing in order to practice normal procedures, and

b) One approach with 1 dot deviation above the glide path followed by a recovery of the glide path, in order to practice the management of speed excursion and the ability to stabilize once recovered, and

c) One approach with an engine failure below the minima and at low altitude, in order to practice pilot decision to go around or resume landing.

4.3.2 During the training, one go-around should be performed. In addition, one landing with 15 kt crosswind should be performed.

5. PILOT CHECKING

Pilot checking requirements are dependent upon the training program objectives, and operational parts and will be defined by each training program. There is no requirement for knowledge checking or flight proficiency testing for the DA-6X steep approach qualification. Proof of completion of steep approach is sufficient for showing qualification.

6. PILOT CURRENCY

The FSB recommends that the PF should have performed at least two steep approach landings in the preceding 6 months, either in real flight or in FFS.

7. OPERATIONAL SUITABILITY

The DA-6X is operationally suitable for steep approach operations under 14 CFR parts 91, 91K, 121 and 135 with aircrew trained in accordance with the requirements set in this appendix.

This FSB report does not constitute operational approval for the execution of steep approaches in the DA-6X. Additionally, be advised, it is common that individual airport authorities have training and documentation requirements specific to their airfields with regards to steep approaches.