ISRAEL AEROSPACE INDUSTRIES

AIRCRAFT CERTIFICATION POWERHOUSE

ARIEL LALLOUZ, AIRFRAME DESIGN DEPT. CERTIFICATION LEAD

MARCH 2023

Small Country, Big Dreams

IAI – One of the Biggest Players

BOEING

AIRBUS

Gulfstream

LOCKHEED MARTIN

BOMBARDIER

DASSAULT AVIATION

EMBRAER

Beechcraft | Cessna | Hawker

TEXTRON AVIATION

Willing to Dare, Need to Succeed

Education and Sharing of Knowledge

Shared Talent, Different Platforms

STATE OF ISRAEL
Ministry of Transport
Civil Aviation Authority

מדינת ישראל
משרד התחבורה
רשות התעופה האזרחית

תעודת סוג - תוספת
SUPPLEMENTAL TYPE CERTIFICATE No. SA256

This certificate issued to — **ELTA Systems Ltd., 100 Yitzchak Hanassi Blvd., Ashdod 77102, Israel.** — תעודה זו ניתנה ל-

certifies that the change in the type design for the following product with the limitations and conditions as specified herein meets the requirements of the Air Navigation Regulations (Procedures for Documentation of Aircraft and Aircraft Parts). — מאשרת שהשינוי בתכן הסוג של המוצר דלהלן במגבלות ובתנאים המצויינים כמפורט להלן ממלא אחר דרישות תקנות הסיס (נהלי תיעוד כלי טיס וחלקיהם).

Original product – Type Certificate No. **IA186** — המוצר המקורי – תעודת סוג מס'

Make **Bombardier Inc.** — תוצרת

Model **BD-700-1A11 (Global 5000) S/N 9424 & 9431** — דגם

Description of Type Design Change : — תאור השינוי בתכון הסוג :

Modification of a Bombardier A
installation of internal and exter
electrooptic payload, operator
equipment. Other aircraft equipm

Limitations and Conditions:

This certificate and the supportin
is the basis for approval shall rer
until surrendered, suspended, r
termination date is otherwise es
the Director General, Civil Aviatic

Date of application:

Date of issuance:

Date of amendment:

By the direction of the Director G
Aviation Authority.

Signed:

Title: **Manager, Engineering Branch** — תפקיד:

Shared Talent, Different Platforms

German Heron TP (GHTP) awarded the Type Certificate from the German Military Aviation Authority (GMAA)

APPROVED

Strong Civil Aviation Authority

Many Certifications, Added Safety

Culture of Team Effort

Don’t Argue, Co-operate!

United States of America
Department of Transportation
Federal Aviation Administration
AIRCRAFT
Type Certificate
IMPORT
Number A61NM

This certificate, issued to **Gulfstream Aerospace LP** certifies that the type design for the following product with the operating limitations and conditions therefore as specified in the Federal Aviation Regulations and the Type Certificate Data Sheet, meets the airworthiness requirements of Part 25 of the Federal Aviation Regulations.

Airplane Models Gulfstream G280

This certificate, and the Type Certificate Data Sheet which is a part hereof, shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: **March 30, 2006**

Date of issuance: **August 30, 2012** **Model Gulfstream G280**

By direction of the Administrator

(Signature) Ali Bahrami
Manager, Transport Airplane Directorate
Title) Federal Aviation Administration

...ate may be transferred if endorsed as provided on the reverse hereof.

...ration of this certificate and/or the Type Certificate Data Sheet is punishable by a fine of not ...ding $1,000, or imprisonment not exceeding 3 years, or both.

...RM 8110-9 (2-82)

Co-Operation & Hard Work Pays Off

Federal Aviation Administration

Memorandum

Date: July 13, 2009

To: All Regions
Attn: Manager, Airports Division

From: Rick Marinel

Prepared by: Ken Jacobs,

Subject: Engineering
By-Function

Introduction

This Engineering Brief provid
(NAVAIDS) are fixed-by-fun
inside the runway safety area
Administrator for Airports (A
signed a memorandum (attach
NAVAIDS that are needed to
appropriate corrective action f
Area Inventory (RSAI) databa
work of the joint ARP/Air Tra

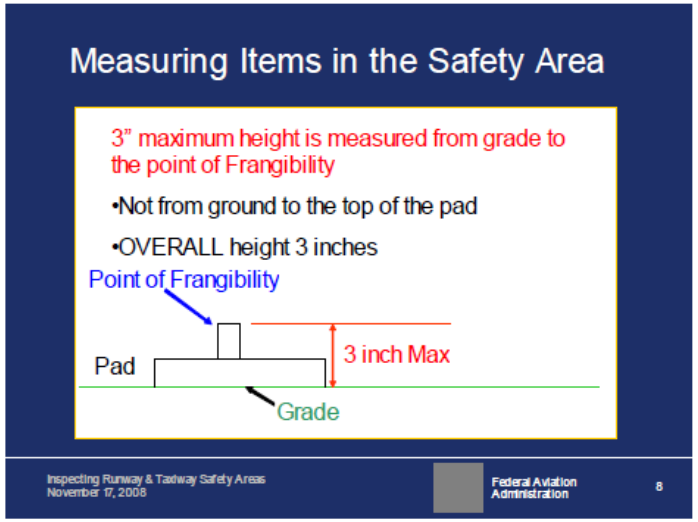
Scope and Intended Audience

FAA and airport field inspecto
NAVAIDs installed inside the

1. are fixed-by-function
2. meet frangibility req

This Engineering Brief does n
procedures for correcting NA
Brief does not provide guidan
NAVAID objects as well as de
requirements. For example, s
even when frangible connectio
engineering judgment may be

Figure 1. Measuring Frangibility of NAVAIDS in the RSA



48th AIAA Aerospace Sciences Meeting Including the New Horizons Forum and Aerospace Exposition
4 - 7 January 2010, Orlando, Florida
AIAA 2010-1542

Aircraft Protection Standards and Implementation Guidelines for Range Safety

Paul D. Wilde*
Federal Aviation Administration, Washington, DC, 20591

Chris Draper†
ACTA Inc, Torrance, CA, 90505

The US range safety community has published consensus standards designed to protect aircraft from potential launch and reentry vehicle debris impacts. Specifically, the current

2) The normal component of the impact velocity is the only source of kinetic energy relevant to the minimum energy required for penetration, which is the energy required to shear out a "plug" of the impacted material as illustrated in Fig. 2.

These assumptions lead to the following equation:

$$\frac{1}{2}m(V_{50}\cos\theta)^2 = C_S L t^2 \quad (1)$$

where the left hand side represents the kinetic energy associated with the component of the projectile velocity normal to the target surface and the right hand side represents the mechanical work necessary to shear out a plug of the target material. Thus, the FAA equation for the ballistic limit, V_{50}, defined as the minimum velocity where a penetration occurs is:

$$V_{50} = \sqrt{\frac{2LC_S t^2}{m\cos^2\theta}} \quad (2)$$

where

m = the mass of the projectile (kg);

θ = the obliquity (radians): the angle between the projectile velocity and the outward pointing normal to the impacted surface;

C_S = an empirically determined shear constant (Pa), which is roughly correlated with classical material properties as described most recently in Ref. 16 and Ref. 17††;

L = the perimeter of the subtended presented area of the projectile (m): in the case of impacts with obliquity this is the area of the projectile normal to the velocity at impact and projected onto the target (e.g. roughly the perimeter of the hole in the target as discussed below);

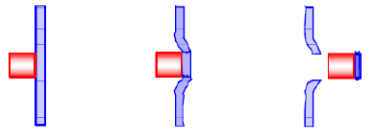
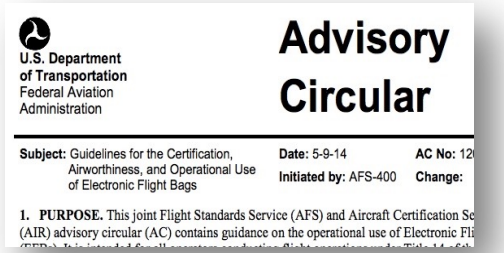


Figure 2. "Plug" Penetration of a Flat Plate.

American Institute of Aeronautics and Astronautics

Certification is an Art, Not a Science

Reinvent the wheel, but only when necessary.


U.S. Department of Transportation
Federal Aviation Administration

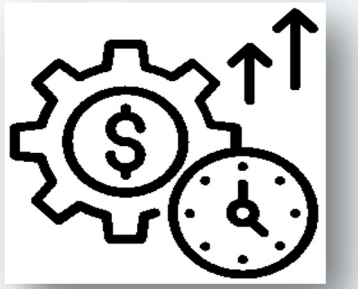
Advisory Circular

Subject: Guidelines for the Certification, Airworthiness, and Operational Use of Electronic Flight Bags

Date: 5-9-14 **AC No:** 12

Initiated by: AFS-400 **Change:**

1. **PURPOSE.** This joint Flight Standards Service (AFS) and Aircraft Certification Se
(AIR) advisory circular (AC) contains guidance on the operational use of Electronic Fli



Safe Aircraft. High Dispatch Reliability.

Ariel Lallouz B.Eng, MBA

Airframe Design Dept. Certification Lead

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Thank You for Your Attention