

MAX • VIZ®



See What You Need to See!!!

These Are The Two New Models EVS

- EVS-1400



- Single LRU easy installation.
- Weight : 0,54 Kg.
- Hi Resolution : 640 x 480 Pixels.
- Electronic Zoom.
- Multiple Horizontal Field of View options : 45° , 69° , 90°
- Integral Window Heaters.

- EVS-2300



- Hi Resolution Dual Sensor System.
- Infra Red & Visible Light. Weight : 1,13 Kg
- 640 x 480 Long Wave Infrared Sensor.
- 720 x 480 Visible Light Sensor HD.
- Digital Zoom Field of View from 45° x 33,75° to 30° x 22,50° .
- Combined Vision System (CVS) compatible.

Why do you need EVS ?

- **To avoid Controlled Flight Into Terrain CFIT are often caused by :**
 - Lost Situational Awareness
 - Unfamiliar Approaches & Terrain
 - Marginal Weather (Vauxhall Bridge accident)
- **To avoid IIMC, also called Inadvertent Flight into IMC:**
 - According to NTSB 2011 figures, 45 of the 52 IIMC were fatal.
 - This is where the EVS can help.

Why do you need EVS ?

To avoid Runway & Helipad Incursions at :

- Unfamiliar Airports or landing sites (EMS primary evacuation).
- Breakdown in ATC / Ground Communications (Falcon 50 accident on Take Off in Moscow)
- Improper Runway or Helipad Identification.
- On platforms Wrong Deck Landing (WDL).

Why Fly With an EVS

- You can see in the dark of night
- You can see with any of the Degraded Visual Environment (DVE) conditions listed below :
- You can see through smoke
- You can see through dust
- You can see through fog, smog & haze
- You can see the Landing Deck.

Up to 10 times improved vision

You will see a man or an A/C or a Target



**Darkness with the naked eye ...
a target with EVS...**

But in a Foggy Morning like that :

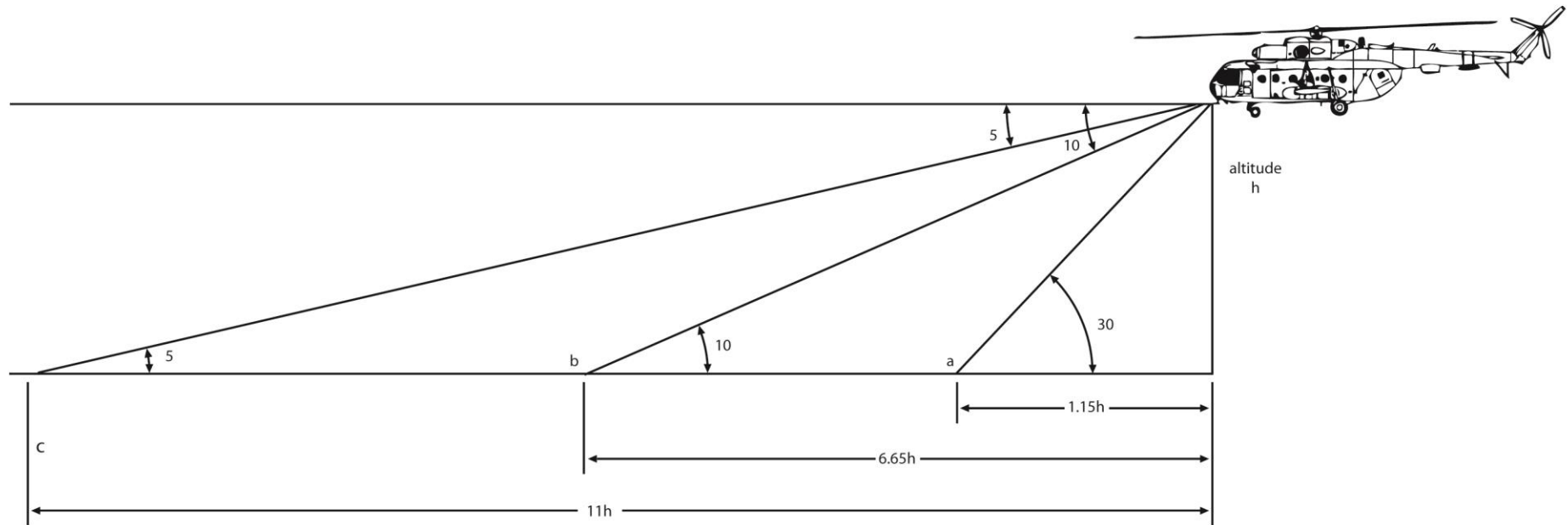


- The EVS might HELP !!

Forward Vision for any Mission



For every type of helicopter a look down angle has been computed depending on CG.
An STC is needed and provided by our company.



Example of EASA STC for the EC-135 models



SUPPLEMENTAL TYPE CERTIFICATE

10039039 REV. 2

This Supplemental Type Certificate is issued by EASA, acting in accordance with Regulation (EC) No. 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation and in accordance with Commission Regulation (EU) No. 748/2012 to:

PROTOPLANE SPECIAL MISSION AIRCRAFT

33 AVENUE DU GENERAL LECLERC
65200 BAGNERES DE BIGORRE
FRANCE

and certifies that the change in the type design for the product listed below with the limitations and conditions specified meets the applicable Type Certification Basis and environmental protection requirements when operated within the conditions and limitations specified below:

Original Type Certificate Number: EASA.R.009

Type Certificate Holder: AIRBUS HELICOPTERS DEUTSCHLAND

Type: EC135/EC635

Model: EC135 P1(CDS), EC135 P1(CPDS)
EC135 P2(CPDS), EC135 P3(CPDS)
EC135 P2+, EC135 T2+
EC135 T1(CDS), EC135 T1(CPDS)
EC135 T2(CPDS), EC135 T3(CPDS)
EC635 P2+, EC635 T2+

Description of Design Change:

Installation of a Max-Viz EVS 1500 vision enhancement system
Installation of EVS 1500 system for Protoplane change project PP-015 as defined in PP-015-MDL-01

See Continuation Sheet(s)

For the European Aviation Safety Agency

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Head of Rotorcraft Department

10012120

SUPPLEMENTAL TYPE CERTIFICATE - 10039039 - REV. 2 - PROTOPLANE SPECIAL MISSION AIRCRAFT - 303194



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EVS on H-135



EVS on AW-109



EVS on Bell 429



EVS Image on Thales Display



EVS Image on Sagem MFD



EVS image on Genesys MFD



EVS Image on Rogerson MFD with NVG



EVS-1500 on Bell 412 with dedicated screen



EVS Image on a Flip Flop Display



EVS on Beechcraft 200 - 350



EVS on CL-415



The EVS in the Fire Bombing Role



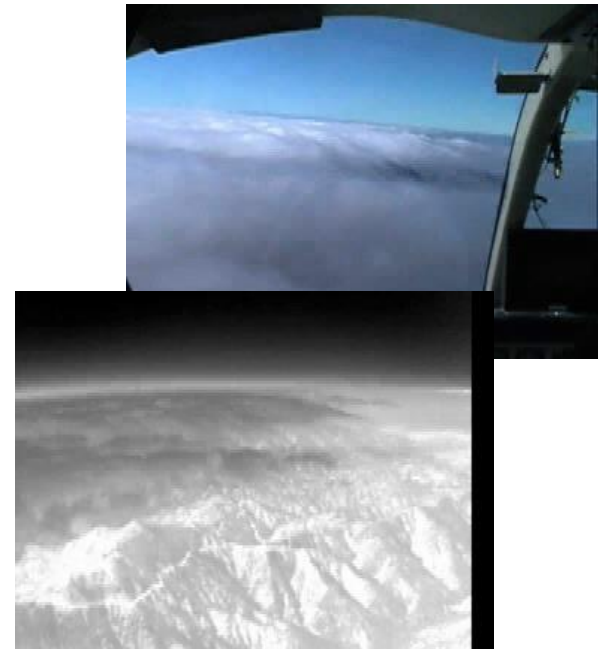
- The title of that Study is : **The Potential of Technologies to Mitigate Helicopter Accident Factors.**
- 145 Individual Technologies were studied and grouped into 11 Categories. The use of the EVS is recommended for Situational Awareness – Visibility / Weather.
- Page 56 – 57, Paragraph 16 : it is written :
- « A pilot must constantly be aware of the external environment, like surrounding hazards and obstacles ... / ... This situation awareness can be (severely) hampered during reduced visibility or bad weather ... / ... Advanced systems like Enhanced Vision System may be useful under those conditions.

October 2014.

Enhanced Vision Systems (EVS)

Provides day-like vision in:

- Darkness
- or DVE such as:
 - Smoke
 - Haze
 - Smog
 - Dust
 - Light Fog*



*Up to 4x to 10x human vision depending on MTO conditions

Friendly and Economical to Use

- No Initial Training required by EASA.
- No Recurrent Training required.
- Only two switches : On / Off & Zoom.
- Non subject to ITAR rule but only to an Export License of Dept of Commerce.
- Ideal tool for Technical Crew Member (TCM)
- No Maintenance Check every 6 months.
- One Annual and Visual Inspection only.
- No Maintenance.
- MTBF = 15000 hours.

Installation STC's Available

FAA Supplement Type Certificates:

Bell 206, 407, 212/412, 429

Airbus EC-130, 135, 145

AW 109, 139

EASA Supplement Type Certificates:

Bell 206, Bell 412

Airbus H-135

EASA Kits under Development:

EC-145, AS-365N, MD-902

Conclusion

- *The EVS Sensors
save lives and enhance
Safety*



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