

### Summary

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- Aeronautical Stress engineer, +10 years of experience, graduated at the UPM University of Madrid in Spain (2004. Ingeniero Técnico Aeronáutico Aeronaves ~Beng in Aeronautics).
- Fluent in English. Basic in French. Native in Spanish.
- Extensive experience with structural repairs (SRM, concessions), stress (sizing, certification, R&D).
- Airbus Software, FEM (Nastran/Patran), Macros in Visual Basic for Excel
- Ultralight Aircraft & RPAS Pilot (Spanish licenses)
- Teacher, blogger, podcaster, writer

### Product & Process knowledge

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- Extensive knowledge of aircraft primary structure, sizing and structural repair..
- Comprehensive knowledge of aircraft secondary structure, sizing, structural repair and jig tools.
- Knowledge of aircraft design, manufacturing, maintenance and piloting.
- RPAs, light aircrafts

### Technical skills

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- +10 years of experience with Airbus stress methods and tools
- 1 year of experience with Navantia (S80) methods and tools.
- Experience in Non Destructive Tests and calibration under ENAC rules

### Experience As Engineer

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- [Airbus](#), Nov 2005-Present (except for Aug 2010-Jul 2011)

**Position & department:** Stress Engineer with CT ingenieros, TAM, Aciturri, Tekplus, AYA Aerospace, Isati, Morson Projects and Inventia Kinetics

**Tasks:** Sizing, Structural analysis, Structural repair definition & analysis (concessions, SRM), Team Leader, Focal Point Technical liaison with customer, Particular Risk Analysis , Jig Tools Stress Analysis

**Products:** Elevator and Rudder (ribs, spars, fittings), Belly Fairing (Stringers, Frames, Systems Supports), Wing Fixed Trailing Edge, Wing Central Box (Spars, Ribs, Skin, Stringers), Flaps Supports, Slats, Section 19, Airbus and Airbus Space and Defense Systems Jig tools

**Processes:** FEM analysis, analytic analysis, client in-house software analysis (Airbus Legacy tools, Isami, Excel, Macros, Sonaca-Sonia), Wheel and Tyre failure analyzed with AGARD method for non explosive projectiles.

**Main projects:**

- A-380 (Belly Fairing Certification, Elevator & Rudder Concessions & SRM, S.19 SRM).
- A-350 (Fixed Trailing Edge, Flaps Supports Particular Risk Analysis -W&TF, Slats)
- A-330 (Slats)
- Clean Sky - Blade Project (R&D project, centre wing box for a natural laminar flow wing)
- Jig Tools for various Airbus aircrafts and Satellites

- [Navantia](#), Aug 2010-Jul 2011

**Position & department:** Stress engineer (with Altran)

**Tasks:** Structural analysis.

**Products:** Foundations (system supports).

**Processes:** FEM analysis.

**Main projects:** S-80 (Foundations)

- [Maintenance](#) for Air Europa, Spanair, Hola Airlines, Futura Airlines, Apr -Ago 2005

**Position & department:** Production and Calibration Manager in ACMS.

**Tasks:** Maintenance & Metrology, Stock management, Non Destructive Tests

**Products:** Maintenance of DC-8-62/73, 737-400/800 and Cessna Caravan Nose and Main Landing Gear wheels, brakes, rafts, batteries, and Calibration of pressure gauges and torquimeters under ENAC normative

### Experience As Teacher

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- [World Aviation ATO flight school](#), May 2016-March 2017 Ground instructor
- [UPM, Tekplus & Englobe Technologies](#), May-2011, Structural Analysis Seminar (4 weeks).
- [Tutor](#), 1999-2006

## Education & Training

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- Hypermesh (40h Idaero)
- CATIA 5 (70h Mach)
- Nastran/Patran (150h Comunidad de Madrid)
- Excel and Visual Basic for Excel (Cadtech, Foindesa and Fundación Tripartita)
- Seminar in UAS, Unmanned Aerial Systems (40h + real simulation Universidad Politécnica de Madrid, 2010)
- Aircraft Certification under European laws - Certificación de Aeronaves con las normas de la U. Europea (COITAE)
- Lasser tracking course

## Publications

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- **In Spanish:**

- **Books**

- *Aviones Bizarros*, José Manuel Gil & Alejandro Polanco Masa, Glyphos Publicaciones 2016

- **ITAVIA magazine**

- [UAVs, Clasificación, Tendencias y Normativa Espacio-Aereo](#). This article has been quoted by
  - *Ús de vehicles aeris no tripulats (UAV) en àmbits forestals*, Departament d'Activitats Agràries, Generalitat de Catalunya
  - *DAN 151 Normas para las operaciones de sistemas de aeronaves pilotadas a distancia (RPAS)* Lima, Perú 18 - 20 Abril 2012, Dirección General de Aeronáutica Civil de Chile
  - *Revista de la Escuela Superior de Guerra Aérea - N°233* (Argentina)
  - Various Final Year Projects
- [Crónica de UNVEX 2012](#)
- [Roll Out de un Dragon Rapide con los colores de Iberia](#)
- [Aviones con Motor Híbrido](#)
- [Celestia Aerospace propone lanzar satélites desde misiles lanzados por un MiG 29](#)

- **Blogs & Podcast**

- [Sandglass Patrol's blog](#)
- [Remove Before Flight](#)