Turning VFR into PBN

The
Life-saving power
of Collaboration

Unstable Approaches and **Continued landing after Unstable Approach** are precursors to at least **24%** of all fatal Runway Excursions

How many unstable approaches are needed for a **Runway Excursion?**

1

Every time we help avoid/mitigate unstable approaches, we are potentially **preventing** runway excursions and **saving lives**

Turning **VFR** runways into **PBN** is a:

- Quick
- Reliable
- Cost effective

Way to increase safety during the approach & landing phase
(Risk mitigation = less accidents = lives saved)

Collaboration makes it even quicker, more reliable, & more cost effective

Aerovicil – Procedure design & validation

Colombian Air Force – Terrain and obstacle data collection

ATR – Full Flight Simulator validation

Thales – Procedure coding for FMS use

SATENA – In-flight validation and data analysis

ICAO – General coordination

RASG-PA – Funds for FSS validation mission

GESEA – Technical support

100% of all coordination was made remotely

AERONÁUTICA CIVIL
UNIDAD ADMINISTRATIVA ESPECIAL

ATR

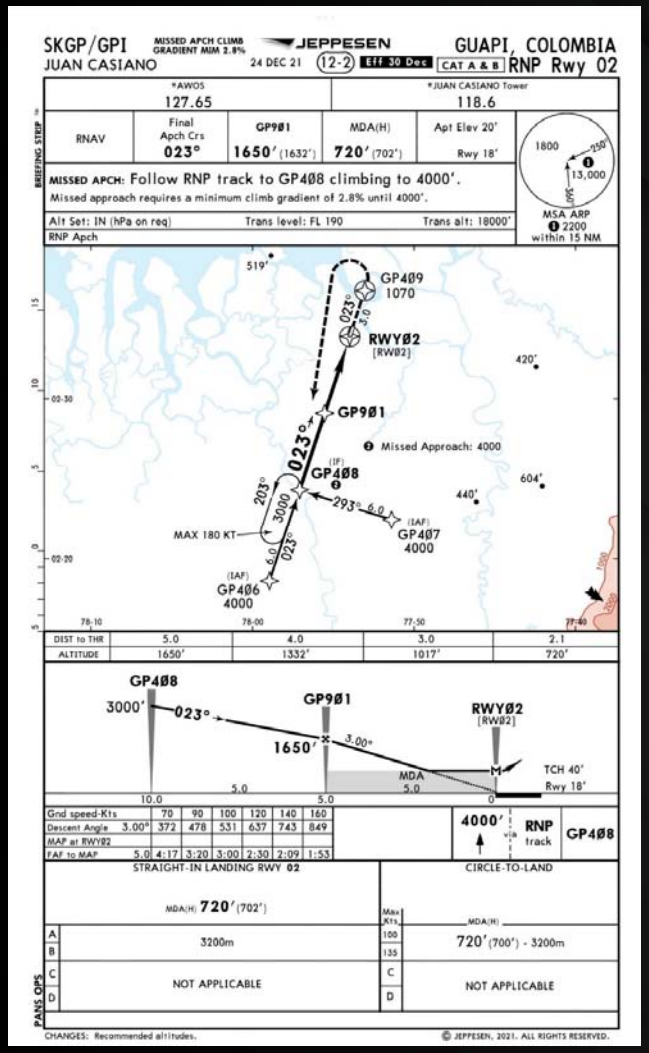
GESEA Grupo de Estudio e Implantación del Espacio Aéreo SAM

ICAO

RASG-PA

SATENA
ES COLOMBIA

THALES
Building a future we can all trust



100% reduction

Unstable Approach

From 12 (2.5% of all approaches) to 0

100% reduction

Hard Landing

From 2 (0.42% of all approaches) to 0

Pilot perception survey

100% **positive**

Collateral benefits

	Before PBN	After PBN	Change
WX Cancellation	5.83% (28/year)	2.92% (14 year)	- 50%
Fuel consumption	241 Tn/year	204 Tn/year	-15.3%
CO2 Emissions	747 Tn CO2/year	642.6 Tn CO2/year	-13.97%
Flight time	38:41/Segment	35:41/Segment	-7.8%
Time saving	24 flight hours/year		

1,500,000 U$D

Cost of acquiring a VOR, installing, verifying and 3 yr maintenance

Now available for a different use ☺!

No one can whistle a symphony.
It takes a whole orchestra to play it

Thank you very much!