VISUAL RNAV Concept of Operation
Proposal for a way forward

Captain Claude Godel
IATA Advisor
Visual RNAV is a reality,
A new CONOPS,
An ATM tool,
The RISE project in Nice (France),
The proposed working document,
A new way to code RNP approaches followed by circlings.
01 – Visual RNAV a reality
NEW CONCEPT OF OPERATIONS STILL TO BE DEFINED

than RNP AR

One could argue that there is no need for this new concept as the already existing RNP AR criteria can provide all benefits expected from the Visual RNAV concept.

RNP AR is expensive and will never offer the operational bility and efficiency permitted by a smart use of the existing raft PBN capabilities in good weather conditions. In the near few aircraft will be RNP AR capable and approved.

Visual RNAV will be an excellent training tool for pilots and rollers in order for them to prepare the arrival of future RNP

.
a Visual approach
new concept is also not just a variation of the existing Visual approach.

Standard Operational Procedures (SOPs) published by the aircraft Manufacturers for the legacy “free” Visual Approaches will allow taking full advantage of the RNAV guidance provided by the Visual RNAV concept especially in the domain of crew workload reduction and improved energy management.

Manufacturers have already published specific “RNAV al” SOPs.

Existing regulatory framework of the Visual Approach may limit the benefit of Visual RNAV approaches.
Visual RNAV, therefore, needs to be defined as a new concept of operations in between RNP AR and Visual approach. To take full advantage of it, ATC, Operators and even Aerodrome authorities have to be involved in the definition of the associated concept of operations.

It is suggested that the FLTOPS Panel should share the initial setting work with the ATMOPS Panel. Furthermore, IFFP, for design, obstacle clearance and charting standards, and the PBN SG, if a new PBN specification is deemed necessary, shall be solicited.
3. BASIC ASSUMPTIONS:
First step is to clearly identify the expected operational benefits associated to Visual RNAV from operators and ATC perspectives. The following assumptions aim to build the frame.

Visual RNAV is primarily an ATM tool targeting safety, efficiency and environmental gains.

Visual RNAV approaches will be developed only where local approaches are already in use by ATC for ATM reasons, or considered by ATC and other Stakeholders as an rationally beneficial means of managing traffic in VMC.

Visual RNAV approach is an enhancement of the standard visual approach, made possible by utilizing the RNAV capability of the contemporary passenger transport aircraft.
The approaches are incorporated into the terminal area procedures and are preceded by a suitable Initial instrument movements and/or STAR. They are used in lieu of instrumental approach when the weather conditions are suitable for the operation.

When cleared for a Visual RNAV, the pilot will follow the planned RNAV Path or inform ATC if it is no longer possible.

Traffic separation remains responsibility of ATC throughout the operation.

Visual RNAV approach is not intended to be used in marginal weather conditions.

Consequently Visual RNAV can be seen as a new type of AV approach consisting in RNAV instrument segments wed by visual segments based on RNAV features.
I gave him a Visual Approach but what is he doing now???

For ATC, Visual RNAV means:
- Predictability
- Less time in the TMA
- No noise issues
- No surprise
- …
04 – the RISE project in Nice
04 – the RISE project in Nice
The proposed working document (based on the work done in Nice by the RISE project)
The Visual RNAV concept also works for approaches where the MAPT is not located at the runway threshold.

Why do we continue to code an easy missed approach and let the pilots struggle with a difficult visual prescribed track? Wouldn't we better provide the pilot with RNAV guidance for a difficult circling or even just for a visual final?
06 – New coding for RNP APCH followed by a circling

**Effective 05-MAR-2015**

United States San Francisco San Francisco Intl

**SFO-KSFO**

**RNAV (GPS) X 28R**

- OAKLAND D 116.8 OAK
- DME/DME RNP-0.3 NA
- Radar required for PROC entry

**D-ATIS**
- 135.450
- 118.850
- 115.800 SFO
- 113.700 PYE

**TWR**
- 120.500

**GND**
- 121.800

**When executing MISAP, initially RT HDG 030° using HDG mode**
06 – New coding for RNP APCH followed by a circling
Thank You!